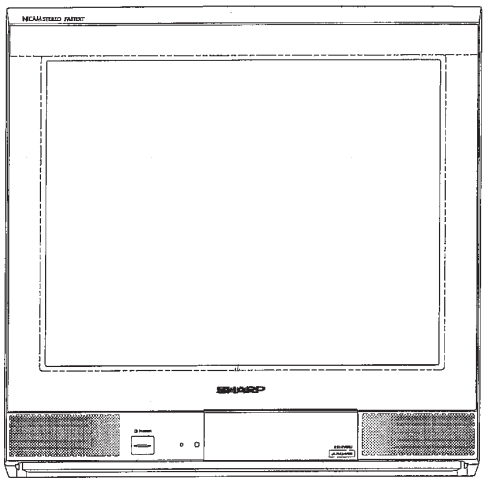
SHARP SERVICE MANUAL

S64W321H-FV5R



COLOUR TELEVISION

Chassis No. GA-2

MODEL 21H-FV5RU

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURES

- Multi 21 Systems
- Full Auto Channel Preset and Auto Channel Skip
- 100-CH Program Memory
- CATV(Hyper Band) Ready <Used Frequency Synthesizer Tuner>
- Black Stretch Circuit
- On Timer/Off Timer/Reminder Timer
- Blue Back Noise Mute
- Front AV IN & Rear AV IN/OUT Terminals
- Component In
- Fastext with Multi Language
- Front Headphone Jack
- Colour Comb Filter (NTSC Only)
- High Contrast Picture
- Hotel Mode
- Two Languages OSD(English/Russian)
- White Temperature Adjustment
- A2/NICAM
- Surround Sound Effect(With Bass/Treble/Balance)

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WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

SPECIFICATIONS

Convergence ..... Self Convergence System
Focus ..... Electrostatic Focus Uni-Bi Potential
Sweep Deflection ..... Magnetic

Intermediate Frequencies
- Picture IF Carrier 38.9MHz
- Sound IF Carrier Frequency
  - 6.5MHz 32.4MHz
  - 6.0MHz 32.9MHz
  - 5.74MHz 33.16MHz
  - 4.5MHz 34.4MHz
  - 5.5MHz 33.4MHz

- Colour Sub-Carrier Frequency 34.47MHz

Power Input ..... 220 ~ 240V AC 50/60 Hz
Power Consumption 107W
Audio Power Output Rating ..... 2.5W(rms)X2

Speaker
- Size ..... 9 x 5 cm Elliptic (2pcs)
- Voice Coil Impedance ..... 16 ohms at 400 Hz

Aerial Input Impedance
- VHF/UHF ..... 75 ohms Unbalanced

Receiving System
PAL I, B/G, D/K & SECAM B/G, D/K, -K1 & NTSC M

Receiving Channel
- VHF-Channels ..... E2(48.25MHz) thru E12(224.25MHz)
  C1(49.75 MHz) thru C12(216.25 MHz)
  S1(105.25 MHz) thru S41(463.25 MHz)
- UHF-Channels ..... E21(471.25MHz) thru E69(855.25MHz)
  C13(471.25 MHz) thru C57(863.25 MHz)

Dimensions ..... Width: 502.0 mm
Height: 487.0 mm
Depth: 481.5 mm
Weight(approx): 24.0 kg

Cabinet material ..... All Plastics

Specifications are subject to change without prior notice.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10K ohm Resistor in series with an insulated wire(such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with tube of the same type number for continued safety.**
3. **Do not lift picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.**

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. **When repairing the circuit, be sure not to increase the high voltage to more than 30.0kV (at beam 0 μA) for the set.**
2. **To keep the set in a normal operation , be sure to make it function on 27.0kV ±1.0kV (at beam 1,000 μA) in the case of the set. The set has been factory - Adjusted to the above-mentioned high voltage.**
   ∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. **Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.**

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety Checks.

1. **Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor- capacity networks, mechanical insulators etc.**

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

CAUTION : MAKE SURE TV SET IN "NORMAL CONDITION" BEFORE SWITCH TO SERVICE MODE FOR ADJUSTMENT.

1. Setting the service mode by the microprocessor.

①. Short JA 304 & JA 307 , then tv set will switch to the SERVICE mode position, and the microprocessor is in input mode. (Adjustment through the I²C bus control).

②. Press the MENU key on the remote controller to get ready to select the mode (Adjustment mode, Setting mode, Check mode and Option mode) one by one.

③. Press the CH DOWN / UP key on the remote controller to select the item in Adjustment mode, Setting mode or Option mode.

④. Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.

Please wait approximately 200 msec for data storage in EEPROM before select to another mode.

⑤. In Check mode the data cannot be changed.

⑥. Disable the short of JA 304 & JA 307, it will switch to the NORMAL mode position, and the microprocessor is out of the SERVICE mode.

2. Factory Presetting.

①. Short JA 304 & JA 307, then turn ON the main power and release the short of JA 304 & JA 307 after raster appeared on the screen. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).

②. The initial data are preset as listed in page 4-2 to 7-1.

③. Make sure the data need modification or not (Initial data).

Note: Once the chassis has been assembled together and ready to be POWER ON for the FIRST TIME, make sure to short JA304 & JA307 to switch to the SERVICE mode position first and then turn on the main power switch (See 2-① above).

Precaution: If haven't done this initialization, it may possibly generate excessive Beam current.

3. For reference please check with memory map RH-IXA319WJN4 (See attachment).

ADJUSTMENT ITEM

*****Below are the adjustment items that should be done, please follow the procedure. Otherwise some adjustment item will be no accurate.**

NO ***	ADJUSTMENT ITEM	REVISION
1	BUS SET UP	
2	OPTION SET UP	
3	H-VCO	
4	VIF-VCO	
5	S-TRAP fo	
6	RF-AGC	
7	PURITY ADJ	
8	CONVERGENCE ADJ	
9	FOCUS ADJ	
10	V-SHIFT (50 Hz)	
11	H-SHIFT (50 Hz)	
12	V-SIZE (50 Hz)	
13	SCREEN	
14	WHITE BALANCE	
15	SUB-BRIGHTNESS	
16	SUB-CONTRAST	
17	SUB-TINT	
18	SUB-COLOUR	
19	SECAM-OFFSET	
20	SIF VCO ADJ	
21	BEAM CURRENT CHECK	
22	BEAM PROTECTOR CHECK	
23	HV PROTECTOR CHECK	
24	OTHER PROTECTOR CHECK	
25	AV OUT CHECK	
26	AV IN CHECK	
27	COMPONENT IN CHECK	
28	CONTRAST CONTROL CHECK	
29	COLOUR CONTROL CHECK	
30	BRIGHTNESS CONTROL CHECK	
31	TINT CONTROL CHECK	
32	SHARPNESS CONTROL CHECK	
33	CH DISPLAY COLOUR CHECK	
34	NORMAL DISPLAY CHECK	
35	WHITE TEMP CONTROL CHECK	
36	COLOUR SYSTEM CHECK	
37	SURROUND CHECK	
38	TREBLE CHECK	
39	BASS CHECK	
40	BALANCE CHECK	
41	SOUND SYSTEM CHECK	
42	NOISE MUTE CHECK	
43	OSD LANGUAGE QUANTITY CHECK	
44	HEAD PHONE CHECK	
45	ROM-CORRECTION CHECK	
46	SHOCK TEST CHECK	

USER DATA IN SERVICE MODE

* While SERVICE mode ON, EEPROM DATA will switch to the service data.
  Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.
* In the service mode, the user data establish as below,

	USER DATA
CONTRAST	MAX (60)
COLOUR	CENT (0)
BRIGHTNESS	CENT (0)
TINT	CENT (0)
SHARPNESS	CENT (0)
WHITE TEMP	STANDARD
S-VOLUME	MIN
SURROUND	OFF
TREBLE	CENT (0)
BASS	CENT (0)
BALANCE	CENT (0)
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1: For each CH, data is same as before switch to Service Mode.

The flow of Mode list as following,

* Direct Key-in Mode for Service Items in Service Mode

RC CODE (HEX)	R/C KEY NAME	SERVICE-ITEM
80	POS 1	R-C UP (IN SERVICE MODE V00)
40	POS 2	G-C UP (IN SERVICE MODE V00)
C0	POS 3	B-C UP (IN SERVICE MODE V00)
20	POS 4	R-C DOWN (IN SERVICE MODE V00)
A0	POS 5	G-C DOWN (IN SERVICE MODE V00)
60	POS 6	B-C DOWN (IN SERVICE MODE V00)
E0	POS 7	R-D UP (IN SERVICE MODE V00)
10	POS 8	B-D UP (IN SERVICE MODE V00)
50	POS 9	B-D DOWN (IN SERVICE MODE V00)
E4	FLASHBACK	R-D DOWN (IN SERVICE MODE V00)
E4	FLASHBACK	Y-MUTE (BESIDES OF SERVICE MODE V00)
75	WHITE TEMP UP	RF-AGC (V01)
F5	WHITE TEMP DOWN	VIF-VC0 (V02)
C2	TUNE DOWN	H-VCO (V03)
8D	SHARPNESS DOWN	SUB-CON (V04)
D6	BALANCE LEFT	SUB-COL (V05)
0D	SHARPNESS UP	SUB-BRIGHT (V06)
36	BALANCE RIGHT	SUB-TINT(V07)
46	TREBLE UP	SUB-SHP (V08)
C6	TREBLE DOWN	SUB-COL-YUV (V09)
26	BASS UP	SUB-TINT-YUV (V10)
24	COLOUR UP	V-SIZE (V11), V-SIZE60 (V17)
54	BRIGHTNESS DOWN	V-SHIFT (V12), V-SHIFT60 (V18)
74	TINT DOWN	H-SHIFT (V13), H-SHIFT60 (V19)
66	SURROUND UP	SCM-BR (V14)
E6	SURROUND DOWN	SCM-BB (V15)
C4	CONTRAST DOWN	SUB-VOL (V16)
4C	PICTURE	S-TRAP-BG (V20)
CC	HOLD	S-TRAP-I (V21)
2C	TEXT	S-TRAP-DK (V22)
AC	CANCEL	S-TRAP-M (V23)
EC	SIZE	S-TRAP-574 (V24)
C1		AUTO ADJ FOR V01, V02, V03, V20, V21, V22, V23,V24
CA		T-SET
81		SERVICE MODE

** After short JA304 & JA307, and turn on the MAIN POWER switch, read data from EEPROM address 00H ~ 03H, and compare to the list below, if different, initialize the EEPROM.

Address	:	Data	Address	:	Data
00H	:	7AH	02H	:	71H
01H	:	73H	03H	:	79H

** There are four stages of service mode data
First stage data from V00~V24 (Adjustment Mode).
To go into second stage of service mode data, press **MENU** key.
Second stage data from F01~F131 **(Setting Mode)**.
To go into third stage of service mode data, press **MENU** key.
Third stage data is Check Mode.
To go into fourth stage of service mode data, press **MENU** key.
Fourth stage data from O01~O23 **(Option Mode)**.

ADJUSTMENT MODE (FIRST STAGE)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-DRIVE	V00	0~127	63	ADJ	PLS REFER TO
B-DRIVE	V00	0~127	63	ADJ	ADJ ITEM FOR
R-CUT	V00	0~255	127	ADJ	SCREEN AND
G-CUT	V00	0~255	127	ADJ	WHITE BALANCE
B-CUT	V00	0~255	127	ADJ	
RF-AGC	V01	0~127	50	AUTO	
VIF-VCO	V02	0~63	31	AUTO	
H-VCO	V03	0~7	3	AUTO	
SUB-CONTRAST	V04	0~127	100	ADJ	
SUB-COLOUR	V05	0~127	63	ADJ	
SUB-BRIGHT	V06	0~255	127	ADJ	
SUB-TINT	V07	0~127	63	ADJ	
SUB-SHARPNESS	V08	0~63	43	FIX	
SUB-COLOUR -YUV	V09	0~127	90	FIX	
SUB-TINT-YUV	V10	0~127	63	FIX	
V-SIZE 50 Hz	V11	0~63	38	ADJ	
V-SHIFT 50 Hz	V12	0~7	3	ADJ	
H-SHIFT 50 Hz	V13	0~31	9	ADJ	
SECAM-BR	V14	0~63	37	ADJ	
SECAM-BB	V15	0~63	22	ADJ	
SUB-VOL	V16	0~60	60	FIX	
V-SIZE 60 Hz	V17	-31~0~+31	0	FIX	IF NECESSARY, ADJ
V-SHIFT 60 Hz	V18	-7~0~+7	-1	FIX	IF NECESSARY, ADJ
H-SHIFT 60 Hz	V19	-15~0~+15	+2	FIX	IF NECESSARY, ADJ
S-TRAP (BG)	V20	0~15	7	AUTO	
S-TRAP (I)	V21	0~15	7	AUTO	
S-TRAP (DK)	V22	0~15	7	AUTO	
S-TRAP (M)	V23	0~15	7	AUTO	
S-TRAP (5.74)	V24	0~15	7	AUTO	

SETTING MODE (SECOND STAGE)

EEPROM ITEMS	FUNCTION	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
STRAPQ-BG	RAISE Q SOUND TRAP B/G	F01	0(NORMAL)/1(Q-UP)	0	FIX	
STRAPQ-I	RAISE Q SOUND TRAP I	F02	0(NORMAL)/1(Q-UP)	0	FIX	
STRAPQ-DK	RAISE Q SOUND TRAP D/K	F03	0(NORMAL)/1(Q-UP)	0	FIX	
STRAPQ-M	RAISE Q SOUND TRAP M	F04	0(NORMAL)/1(Q-UP)	0	FIX	
STRAPQ-574	RAISE Q SOUND TRAP BILINGUAL	F05	0(NORMAL)/1(Q-UP)	0	FIX	
C.CLIP-LVL	CLIP LEVEL CONTRAST CONTROL OF RGB INPUT	F06	0(20H)/1(40H)	0	FIX	
RGB-CLIP	CLIPPING OF RGB CONTRAST CONTROL	F07	0(CLIP OFF)/ 1(CLIP ON)	0	FIX	
BS	BLACK STRETCH	F08	0(ON)/1(OFF)	0	FIX	
ABCL	ABCL PROCESSING (ACL PROCESSING)	F09	0(OFF)/1(ON)	0	FIX	
ABCL-GAIN	ABCL PROCESSING GAIN	F10	0(LOW)/1(HIGH)	0	FIX	
S-OUT-LVL	AUDIO OUTPUT GAIN CONTROL	F11	0~127	95	FIX	
VIF-G	P-IF DETECTION GAIN OUTPUT	F12	0~7	4	FIX	
SHPG	SHARPNESS GAIN	F13	0(NORMAL)/1(HIGH)	0	FIX	
SHPG-P	SHARPNESS GAIN PAL	F14	0(NORMAL)/1(HIGH)	0	FIX	
SHPG-S	SHARPNESS GAIN SECAM	F15	0(NORMAL)/1(HIGH)	0	FIX	
SHPG-N4	SHARPNESS GAIN N443	F16	0(NORMAL)/1(HIGH)	0	FIX	
SHPG-N3	SHARPNESS GAIN N358	F17	0(NORMAL)/1(HIGH)	1	FIX	
YDL	Y SIGNAL DELAY	F18	0~7	5	FIX	
YDL-P	Y SIGNAL DELAY PAL	F19	0~7	5	FIX	
YDL-S	Y SIGNAL DELAY SECAM	F20	0~7	7	FIX	
YDL-N4	Y SIGNAL DELAY N443	F21	0~7	5	FIX	
YDL-N3	Y SIGNAL DELAY N358	F22	0~7	5	FIX	
YDL-AV	Y SIGNAL DELAY AV	F23	0~7	6	FIX	
YDL-AV-P	Y SIGNAL DELAY PAL (AV)	F24	0~7	6	FIX	
YDL-AV-S	Y SIGNAL DELAY SECAM (AV)	F25	0~7	7	FIX	
YDL-AV-N4	Y SIGNAL DELAY N443 (AV)	F26	0~7	6	FIX	
YDL-AV-N3	Y SIGNAL DELAY N358 (AV)	F27	0~7	6	FIX	
YDL-YUV	Y SIGNAL DELAY YUV	F28	0~7	6	FIX	
COL-AV (OFFSET)	COLOUR OFFSET AV	F29	-31~0~+31	+10	*FIX	**BUS SET UP**
COL-P (OFFSET)	COLOUR OFFSET PAL	F30	-30~0~+31	0	FIX	
COL-S (OFFSET)	COLOUR OFFSET SECAM	F31	-31~0~+31	+9	FIX	
COL-N4 (OFFSET)	COLOUR OFFSET N443	F32	-31~0~+31	-8	FIX	
COL-N3 (OFFSET)	COLOUR OFFSET N358	F33	-31~0~+31	-7	FIX	
COL-ADJ (OFFSET)	COLOUR OFFSET ADJUST	F34	-31~0~+31	0	*FIX	**BUS SET UP**
SHP-AV (OFFSET)	SHARPNESS OFFSET AV	F35	-31~0~+31	+5	FIX	
SHP-YUV (OFFSET)	SHARPNESS OFFSET YUV	F36	-31~0~+31	0	FIX	
SHP-P (OFFSET)	SHARPNESS OFFSET PAL	F37	-31~0~+31	0	FIX	
SHP-S (OFFSET)	SHARPNESS OFFSET SECAM	F38	-31~0~+31	-5	FIX	
SHP-N4 (OFFSET)	SHARPNESS OFFSET N443	F39	-31~0~+31	0	FIX	
SHP-N3 (OFFSET)	SHARPNESS OFFSET N358	F40	-31~0~+31	0	FIX	
TINT-AV (OFFSET)	TINT OFFSET AV	F41	-63~0~+63	0	*FIX	**BUS SET UP**
TINT-ADJ (OFFSET)	TINT OFFSET ADJUST	F42	-63~0~+63	0	*FIX	**BUS SET UP**
TINT-YUV-ADJ (OFFSET)	TINT YUV OFFSET ADJUST	F43	-63~0~+63	0	FIX	
R-R (OFFSET)	R-DRIVE OFFSET WHEN WHITE TEMP IS RED	F44	-63~0~+63	+8	*FIX	**BUS SET UP**
B-R (OFFSET)	B-DRIVE OFFSET WHEN WHITE TEMP IS RED	F45	-63~0~+63	-10	*FIX	**BUS SET UP**
R-B (OFFSET)	R-DRIVE OFFSET WHEN WHITE TEMP IS BLUE	F46	-63~0~+63	-3	*FIX	**BUS SET UP**
B-B (OFFSET)	B-DRIVE OFFSET WHEN WHITE TEMP IS BLUE	F47	-63~0~+63	+16	*FIX	**BUS SET UP**
DT	WIDEBAND CHROMA TRAP (FOR SECAM)	F48	0(NARROW)/ 1(WIDE)	0	FIX	

SETTING MODE (SECOND STAGE)

EEPROM ITEMS	FUNCTION	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
DT-P	WIDEBAND CHROMA TRAP (FOR SECAM) PAL	F49	0(NARROW)/ 1(WIDE)	0	FIX	
DT-S	WIDEBAND CHROMA TRAP (FOR SECAM) SECAM	F50	0(NARROW)/ 1(WIDE)	1	FIX	
DT-N4	WIDEBAND CHROMA TRAP (FOR SECAM) N443	F51	0(NARROW)/ 1(WIDE)	0	FIX	
DT-N3	WIDEBAND CHROMA TRAP (FOR SECAM) N358	F52	0(NARROW)/ 1(WIDE)	0	FIX	
TRAP	CENTER VALUE OF CHROMA TRAP	F53	0~3	2	FIX	
TRAP-P	CENTER VALUE OF CHROMA TRAP PAL	F54	0~3	2	FIX	
TRAP-S	CENTER VALUE OF CHROMA TRAP SECAM	F55	0~3	2	FIX	
TRAP-N4	CENTER VALUE OF CHROMA TRAP N443	F56	0~3	2	FIX	
TRAP-N3	CENTER VALUE OF CHROMA TRAP N358	F57	0~3	2	FIX	
1W-TV	VERT SYNC DETECTION MODE FOR AV (1 WINDOW/2 WINDOW)	F58	ACCEPTABLE PERIOD: 0(AUTOMATIC CHANGE)/ 1(FIX (WIDE))	0	FIX	
1W-AV	VERT SYNC DETECTION MODE FOR TV (1 WINDOW/2 WINDOW)	F59	ACCEPTABLE PERIOD: 0(AUTOMATIC CHANGE)/ 1(FIX (WIDE))	1	FIX	
V-FREE (NO SYNC)	SET VERTICAL TO FORCED FREE RUN MODE	F60	0(NORMAL)/ 1(FREERUN)	0	FIX	
AFC2 (NO SYNC)	HORIZONTAL AFC2 GAIN	F61	0(NORMAL)/1(DOWN)	0	FIX	
GAMMA	GAMMA CORRECTION QTY	F62	0~3	0	FIX	
BS-D/C	BLACK STRETCH CONTROL LEVEL	F63	0~15	10	FIX	
BS-GAIN	BLACK STRETCH LEVEL	F64	0(NORMAL)/1(DOWN)	0	FIX	
OM-DET	OVER MODULATION DETECT	F65	0(OFF)/1(ON)	0	FIX	
SL-TV	SLICE LEVEL OF SYNC DETECTION TV	F66	0~7	2	FIX	
SL-AV	SLICE LEVEL OF SYNC DETECTION AV	F67	0~7	4	FIX	
SL-YUV	SLICE LEVEL OF SYNC DETECTION YUV	F68	0~7	4	FIX	
VD2/VD1/AS/FBP-TV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY, AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (TV)	F69	0~15	6	FIX	
VD2/VD1/AS/FBP-AV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY, AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (AV)	F70	0~15	14	FIX	
VD2/VD1/AS/FBP-YUV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY, AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (YUV)	F71	0~15	14	FIX	
VDL	COLOUR DIFF. INPUT PHASE ADJ	F72	0~3	0	FIX	
UDL	COLOUR DIFF. INPUT PHASE ADJ	F73	0~3	0	FIX	
AUTO-SCM-KIL-TV	SECAM COLOUR KILLER SENSITIVITY (TV)	F74	0~3	1	FIX	
SCM-YDL	SECAM Y-DELAY	F75	0/1	0	FIX	
SECAM-BGP	INTERNAL SECAM BGP TIMING	F76	0~3	0	FIX	

SETTING MODE (SECOND STAGE)

EEPROM ITEMS	FUNCTION	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
N45	INHIBIT 50Hz NTSC 4.43	F77	0(NORMAL)/ 1(INHIBIT)	0	FIX	
DL-REV	NON INTERLACE PHASE	F78	0(NORMAL)/ 1(REVERSE)	0	FIX	
DL-OUT	VD PULSE FOR MCU WHEN 312/313H MODE IS ENABLED	F79	0(312.5H)/ 1(312/313H)	0	FIX	
TXT-POS-H (TELETEXT)	TELETEXT HORIZONTAL POSITION	F80	0~63	30	*FIX	**BUS SET UP**
TXT-POS-V (TELETEXT)	TELETEXT VERTICAL POSITION	F81	0~63	34	FIX	
OSD-POS	OSD POSITION	F82	0~127	9	FIX	
CP	CHARGE PUMP	F83	0(FAST TUNING)/ 1(MODERATE SPEED TUNING)	1	FIX	
SMALL-SURR (S-CTRL)	SURROUND MODE SELECT	F84	0(EALA EFFECT LARGE)/ 1(EALA EFFECT SMALL)	0	FIX	
SUB-BASS (S-CTRL)	SUB BASS CONTROL	F85	0(0dB), 1(-1dB), 2(-2dB), 3(-3dB), 4(0dB), 5(+1dB), 6(+2dB), 7(+3dB)	6	*FIX	**BUS SET UP**
SUB-TREB (S-CTRL)	SUB TREBLE CONTROL	F86	0(0dB), 1(-1dB), 2(-2dB), 3(-3dB), 4(0dB), 5(+1dB), 6(+2dB), 7(+3dB)	0	*FIX	**BUS SET UP**
AGC-ADJ (S-CTRL)	AGC LEVEL ADJUST	F87	0(AGC Off),1(300mVrms), 2(400mVrms),3(500Vrms), 4(600mVrms)	0	*FIX	**BUS SET UP**
AGC-SW-OFF (NICAM)	NICAM AGC SWITCH OFF	F88	0(DISABLE, FIX GAIN), 1(ENABLE)	1	FIX	
AGC-GAIN-ADJ (NICAM)	NICAM AGC GAIN ADJUST	F89	0~31	16	FIX	
FM-LEVEL-ADJ (NICAM)	FM LEVEL ADJUST	F90	-15~0~+15	0	FIX	
IGR-LEVEL-ADJ (NICAM)	IGR LEVEL ADJUST	F91	-15~0~+15	+1	FIX	
NICAM-BG-LVL-ADJ (NICAM)	NICAM B/G LEVEL ADJUST	F92	-15~0~+15	-2	FIX	
NICAM-I-LVL-ADJ (NICAM)	NICAM I LEVEL ADJUST	F93	-15~0~+15	+3	FIX	
NICAM-DK-LVL-ADJ (NICAM)	NICAM D/K LEVEL ADJUST	F94	-15~0~+15	-1	FIX	
NICAM-LOW-ERR-LIM (NICAM)	NICAM LOWER ERROR LIMIT	F95	0~255	35	FIX	
NICAM-UPP-ERR-LIM (NICAM)	NICAM UPPER ERROR LIMIT	F96	0~255	70	*FIX	**BUS SET UP**
IGR-GAIN-ADJ (IGR)	IGR GAIN ADJUST	F97	-6~0~+7	0	FIX	
FM-ID-SPEED (NICAM)	FM SOUND IDENTIFICATION MODE	F98	0(SLOW)/1(MEDIUM)/ 2(FAST)/3(OFF)	1	FIX	
NICAM-AUTO-MUTE	NICAM AUTO DETECTION	F99	0(MUTE)/1(DEMUTE)	0	FIX	
ANA-OSD	RGB INPUT	F100	0(DIGITAL)/1(ANALOG)	0	*FIX	**BUS SET UP**
AUTO-SCM-KIL-AV-YUV	SECAM COLOUR KILLER SENSITIVITY (AV/YUV)	F101	0~3	1	FIX	
AFC1-GAIN-TV	MSB OF HORIZONTAL AFC GAIN1 (TV)	F102	0(NORMAL)/1(x2)/ 2(x1.5)/3(3.5)	0	FIX	
AFC1-GAIN-AV	MSB OF HORIZONTAL AFC GAIN1 (AV)	F103	0(NORMAL)/1(x2)/ 2(x1.5)/3(3.5)	3	FIX	
AFC1-GAIN-YUV	MSB OF HORIZONTAL AFC GAIN1 (YUV)	F104	0(NORMAL)/1(x2)/ 2(x1.5)/3(3.5)	3	FIX	
CON-REDUCE	CONTRAST (PICTURE LEVEL) CONTROL	F105	0(0%)~1(25%)~2(50%)	0	FIX	
TAKE-OFF-TV	TAKEOFF/BPF OF CHROMA BPF PROCESSING TV	F106	0(BPF)/1(TAKEOFF)	1	FIX	

SETTING MODE (SECOND STAGE)

EEPROM ITEMS	FUNCTION	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
TAKE-OFF-AV	TAKEOFF/BPF OF CHROMA BPF PROCESSING AV	F107	0(BPF)/1(TAKEOFF)	0	FIX	
TAKE-OFF-YUV	TAKEOFF/BPF OF CHROMA BPF PROCESSING YUV	F108	0(BPF)/1(TAKEOFF)	0	FIX	
C-ANGLE (103 DEG/ 95 DEG)	CHROMA MODULATION ANGLE	F109	0 (103deg) / 1 (95deg)	1	FIX	
STD-BY-WO-BRIGHT	PICTURE BLACK LEVEL (BRIGHT) CONTROL-POWER ON TO STDBY	F110	0~255	255	*FIX	**BUS SET UP**
AC-FAIL-WO-BRIGHT	PICTURE BLACK LEVEL (BRIGHT) CONTROL-AC FAILURE	F111	0~255	255	FIX	
FORCED-SCM-KIL-TV	FORCED SECAM COLOUR KILLER SENSITIVITY (TV)	F112	0~3	2	FIX	
FORCED-SCM-KIL-AV-YUV	FORCED SECAM COLOUR KILLER SENSITIVITY (AV/YUV)	F113	0~3	2	FIX	
R-Y Adj.	COLOUR EDGE IMPROVEMENT	F114	0(DISABLE)/ 1(ENABLE)	0	*FIX	**BUS SET UP**
V-Demute-Delay	VIDEO DEMUTE DELAY	F115	0~255	0	FIX	
S-Demute-Delay	SOUND DEMUTE DELAY	F116	0~255	0	FIX	
MER	S-BOOSTER FREQ. CHARACTERISTIC CONTROL	F117	0~255	70	FIX	
MEL1	S-BOOSTER LEVEL1	F118	0~255	150	FIX	
MEL2	S-BOOSTER LEVEL2	F119	0~255	156	FIX	
MEL3	S-BOOSTER LEVEL3	F120	0~255	163	FIX	
MEL4	S-BOOSTER LEVEL4	F121	0~255	165	FIX	
MEL5	S-BOOSTER LEVEL5	F122	0~255	170	FIX	
MEL6	S-BOOSTER LEVEL6	F123	0~255	180	FIX	
S-St-Point	S-BOOSTER START POINT	F124	0~60	21	FIX	
S-Sp-Point	S-BOOSTER STOP POINT	F125	0~60	60	FIX	
S-Step	S-BOOSTER STEP	F126	0~60	7	FIX	
Pow-Storage	CONTRAST/BRIGHTNESS INCREASE GRADUALLY	F127	0(DISABLE)/ 1(ENABLE)	0	*FIX	**BUS SET UP**
S-B-BASS	S-BOOSTER BASS LIMITER (WHEN S-BOOSTER ON)	F128	-30~0~+30	+15	FIX	
S-B-TREB	S-BOOSTER TREBLE LIMITER (WHEN S-BOOSTER ON)	F129	-30~0~+30	+15	FIX	
S-BASS	S-BOOSTER BASS LIMITER (WHEN S-BOOSTER OFF)	F130	-30~0~+30	+30	FIX	
S-TREB	S-BOOSTER TREBLE LIMITER (WHEN S-BOOSTER OFF)	F131	-30~0~+30	+30	FIX	

OPTION MODE (FOURTH STAGE)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	REMARK
***HTL	O01	0 (0FF) / 1 (0N)	0	OPTION SET UP
***HTL-POS	O02	0~99,—	—	OPTION SET UP
***HTL-VOL	O03	0~60,—	—	OPTION SET UP
VIF	O04	0 (38.0) / 1 (38.9)	1	OPTION SET UP
SECAM	O05	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N443(RF)	O06	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N358(RF)	O07	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
FORCE-COL	O08	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
S-SYS	O09	1(BG ONLY)~15(ALL)	15	OPTION SET UP
AV	O10	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
AV2	O11	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
YUV	O12	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
S-CTRL	O13	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
NICAM	O14	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
A2	O15	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
TELETEXT	O16	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
BILLINGUAL	O17	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
LANGUAGE	O18	1~255	63	OPTION SET UP
SEARCH-SPEED	O19	1(350)~2(450)~3(550)~4(650)~5(750)	3	OPTION SET UP
R/C-MENU	O20	0 (ENABLE) / 1 (DISABLE)	0	OPTION SET UP
LED-CONT	O21	0 (ONE LED) / 1 (TWO LED)	0	OPTION SET UP
S-BOOSTER	O22	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
SHARP-LOGO	O23	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP

*** HTL
OPERATION OF HOTEL MODE:
WHEN CHANGE SERVICE DATA O01 TO 1, HOTEL MODE IS ON
WHEN HOTEL MODE IS ON,
1. Max volume data is determined by option setting HTL-VOL (O03)
2. Channel position after POWER ON is determined by option setting HOTEL-POS (O02) (if option setting HOTEL-POS is not set, processing is according to last position data).
3. User data updates of EEPROM regarding the video and audio control is not allowed.
4. Preset mode is disable.
5. CH SETTING menu is not available.

ADJ ITEM: BUS SET UP (1ST & 2ND STAGE SERVICE DATA)

SERVICE ITEMS		21H-FV5RU			
F29	COL-AV (OFFSET)	+10			
F34	COL-ADJ (OFFSET)	0			
F41	TINT-AV (OFFSET)	0			
F42	TINT-ADJ (OFFSET)	0			
F44	R-R (OFFSET)	+8			
F45	B-R (OFFSET)	-10			
F46	R-B (OFFSET)	-3			
F47	B-B (OFFSET)	+16			
F80	TXT-POS-H (TELETEXT)	38			
F85	SUB-BASS (S-CTRL)	3			
F86	SUB-TREB (S-CTRL)	3			
F87	AGC-ADJ (S-CTRL)	3			
F96	NICAM-UPP-ERR-LIM (NICAM)	150			
F100	0 (DIGITAL) / 1 (ANALOG) OSD	1			
F110	STD-BY-WO-BRIGHT	100			
F114	R-Y Adj	1			
F127	POWER-STORAGE	1			

ADJ ITEM: OPTION SET UP (4TH STAGE SERVICE DATA)

SERVICE ITEMS			21H-FV5RU			
O01	HTL	0 (OFF) / 1 (ON)	0			
O02	HTL-POS	0~99,—	–			
O03	HTL-VOL	0~60,—	–			
O04	VIF	0 (38.0) / 1 (38.9)	1			
O05	SECAM	0 (DISABLE) / 1 (ENABLE)	1			
O06	N443(RF)	0 (DISABLE) / 1 (ENABLE)	1			
O07	N358(RF)	0 (DISABLE) / 1 (ENABLE)	1			
O08	FORCE-COL	0 (DISABLE) / 1 (ENABLE)	0			
O09	S-SYS	1 (BG ONLY) ~ 15 (ALL)	15			
O10	AV	0 (DISABLE) / 1 (ENABLE)	1			
O11	AV2	0 (DISABLE) / 1 (ENABLE)	1			
O12	YUV	0 (DISABLE) / 1 (ENABLE)	1			
O13	S-CTRL	0 (DISABLE) / 1 (ENABLE)	1			
O14	NICAM	0 (DISABLE) / 1 (ENABLE)	1			
O15	A2	0 (DISABLE) / 1 (ENABLE)	1			
O16	TEXT	0 (DISABLE) / 1 (ENABLE)	1			
O17	BIL	0 (DISABLE) / 1 (ENABLE)	0			
O18	LANG	1~255	9			
O19	SEARCH-SP	1(350)~2(450)~3(550)~4(650)~5(750)	3			
O20	R/C MENU	0 (ENABLE) / 1 (DISABLE)	0			
O21	LED-CONT	0 (ONE LED) / 1 (TWO LED)	0			
O22	S-BOOSTER	0 (DISABLE) / 1 (ENABLE)	0			
O23	SHARP-LOGO	0 (DISABLE) / 1 (ENABLE)	0			

ROM CORRECTION DATA
Please do ROM-CORRECTION.
The data is as below:

MCU	M37150MA-062FP
Software Version	V2.11
ROM Correct1	1. At VCJ sub-addr = 0Eh, during AV-MUTE & YUV detected, data = data + offset (15) 2. At VCJ sub-addr = 21h, Bit7 = 1
ROM Correct2	At NCM sub-addr = 12h, data = $FB (TV) & data = $FF (AV/COMPONENT) during AV mute

EEPROM Data

Slave	Sub.	Data								Comment
$A2	$76	C1								ROM Correction1 Permission
	$77	D2								ROM Correction1 Address(H)
	$78	95								ROM Correction1 Address(L)
	$79	1E								ROM Correction1 Code length
	$7A	63								ROM Correction1 Checksum
$A2	$7B	C1								ROM Correction2 Permission
	$7C	DF								ROM Correction2 Address(H)
	$7D	4D								ROM Correction2 Address(L)
	$7E	20								ROM Correction2 Code length
	$7F	B9								ROM Correction2 Checksum
$A2	$80-$87	E0	0E	D0	10	FF	11	22	5C	ROM Correction1 Data
	$88-$8F	C0	02	D0	02	EF	11	F7	11	
	$90-$97	03	18	69	0F	E0	21	D0	01	
	$98-$9F	EB	A0	BA	4C	97	D2	FF	FF	
$A2	$A0-$A7	E0	12	F0	03	20	C6	D5	37	ROM Correction2 Data
	$A8-$AF	0A	02	A2	12	E0	12	D0	0D	
	$B0-$B7	A9	FB	A0	B0	22	59	90	02	
	$B8-$BF	A9	FF	20	BB	D5	4C	50	DF	

1.) Please set the MCL to **MCL1**.
2.) After set the MCL , please set the **INITIAL SETTING** to INITIAL 5.
INITIAL5: For Russia (All Channel Sound System are set to D/K)

MCL1 (HEX AE)		
CH-NO	Fv (MHz)	SOUND SYS
0		
1	48.25	B/G
2	62.25	B/G
3	77.25	D/K
4	175.25	B/G
5	182.25	B/G
6	183.25	D/K
7	191.25	D/K
8	196.25	B/G
9	199.25	M
10	210.25	B/G
11	224.25	B/G
12	471.25	B/G
13	487.25	I
14	503.25	B/G
15	575.25	B/G
16	583.25	B/G
17	599.25	B/G
18	621.25	M
19	639.25	D/K
20	703.25	B/G
21	735.25	I
22	767.25	B/G
23	815.25	B/G
24	855.25	I
25	855.25	B/G
26	55.25	M
27	83.25	M
28	183.25	M
29	193.25	M
30	217.25	M
31	471.25	M
32	477.25	M
33	693.25	M
34	885.25	M
35	112.25	B/G
36	168.25	B/G
37		
38	294.25	B/G
39	463.25	B/G
40		
41	647.25	B/G
42	663.25	B/G
43	679.25	B/G
44	174.95	B/G
45	175.55	B/G
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*NOTE: PLL DATA OF ABOVE FREQ SHOULD TAKE THE ACCOUNT OF PIF SETTING IN SERVICE OPTION O04 (VIF) BEFORE STORING INTO EEPROM.

SHIPPING SETTING & CHECKING

(1)The following default data has been factory-set for the EEPROM follow by INITIAL DATA selected.

ITEMS	DATA SETTING
LAST POWER	ON
LAST TV/AV MODE	TV MODE
LAST POSITION	CH 1
FLASHBACK CHANNEL	CH 1
1/2 DIGIT ENTRY	2 DIGIT ENTRY
VOLUME	0 (Min)
BLUE BACK	OFF
TEXT	OFF
OFF TIMER	—:—
ON TIMER	—:—
ON TIMER POSITION	—
ON TIMER VOLUME	—
REMINDER	—:—
AFT	ALL CH ON
COLOUR SYSTEM	ALL CH AUTO
SKIP	ALL CH OFF
NICAM ON/OFF	ALL CH ON
NICAM STEREO MODE	ALL CH STEREO
NICAM BILINGUAL MODE	ALL CH MAIN
NICAM MONO MODE	ALL CH MONO
A2 ON/OFF	ALL CH ON
A2 STEREO MODE	ALL CH STEREO
A2 BILINGUAL MODE	ALL CH MAIN
CONTRAST	60
COLOUR	0
BRIGHTNESS	0
TINT	0
SHARPNESS	0
WHITE TEMP	0
SURROUND	OFF
TREBLE	0
BASS	0
BALANCE	0 (CENTER)

INITIAL	LANGUAGE	SOUND SYSTEM
5 (HEX 57)	RUSSIAN	D/K

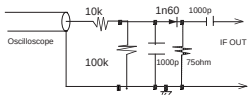
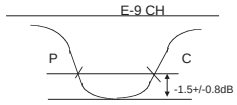
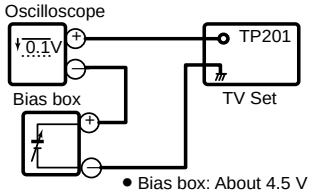
FACTORY SETTING BY MODEL
(Reference: Geomagnetism Adjustment)

MODEL	MAGNETIC FIELD(V, H) nT		BACKGROUND	LANGUAGE	S-SYS	LANG QTY
RUSSIA	45,000	20,000	7500K	RUSSIAN	D/K	2

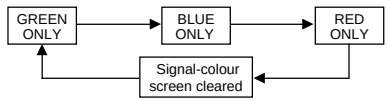
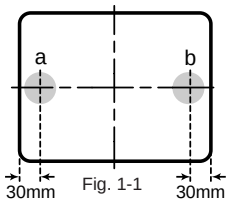
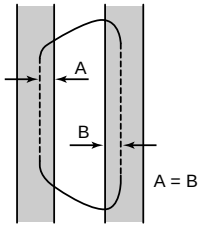
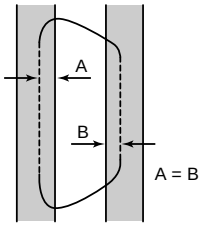
*NOTE FOR OSD TYPE

2 : ENGLISH/RUSSIAN

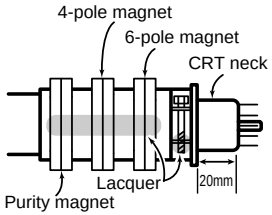
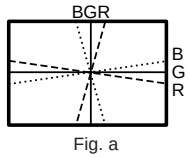
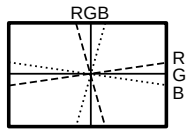
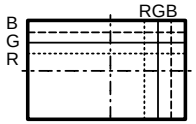
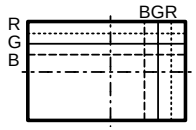
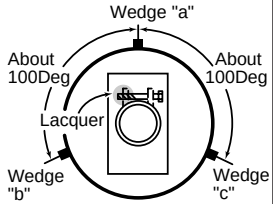
PIF ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**Tuner IFT (PRESET)**	1. Get the tuner ready to receive the CH. E - 9 signal,but with no signal input. Adjust the PLL data. 2. Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP) 3. Adjust the sweep generator's to 80dBμV. 4. Connect the response lead (use LOW IMPEDANCE probe with wave detector ; see Fig.1) to the tuner's IF output terminal. (This terminal must have the probe alone connected). 5. Set the RF AGC to 0 - 6 V with no saturation with the waveform. 6. Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2. **Note: Be sure to keep the tuner cover in position during this adjustment.**	 Fig.1  Fig.2
2	**RF-AGC TAKE OVER POINT ADJUSTMENT (I^2C BUS CONTROL)** **(AUTO & MANUAL ADJ)**	1. Receive "PAL COLOUR BAR" signal. ● Signal Strength: 56 ± 1 dBμV (75 ohm open) 2. Connect the oscilloscope to TP201 (Tuner's AGC Terminal) as shown in Fig. 3-1.  ● Bias box: About 4.5 V Fig. 3-1 3. Call "**V01**" mode in service mode. Adjust the "**V01**" bus data to obtain the Tuner output pin drop **0.1~1.0V** below maximum voltage. 4. Change the antenna input signal to 63~67dBμV, and make sure there is no noise. 5. Turn up the input signal to 90~95 dBμV to be sure that there is no cross modulation beat.	*** for Auto ADJ** 1) Receive "PAL COLOUR BAR" signal. signal strength: 56 ± 1dBμV(75 ohm open) 1) Go to service mode. 2) Go to service data V01, press R/C to operate auto key (Hex C1) and confirm the 'OK' display on the screen. 3) If appear NG, increase data some step and pls repeat step 2. 4) Proceed with steps 4 & 5 in manual mode.

PURITY ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**PURITY ADJ.**	1. Receive the GREEN-ONLY signal. Adjust the beam current to ~700 μA. 2. Degauss the CRT enough with the degausing coil. **Note: Follow the Job Instruction Sheet to adjust the magnetic field.** Vertical Bv: +0.045 mT (0.45 gauss) Horizontal Bh: +0.020 mT (0.20 gauss) (Reference: page 8-2) 3. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted. 4. Observe the points a, b as shown in Fig. 1-1 through the microscope. Adjust the landings to A rank requirement. 5. Orient the raster rotation to 0 eastward. 6. Tighten up the deflection coil screws. ● Tightening torque: 108 ± 20 N (11 ± 2 kgf) 7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it. **Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700 μA.** **Note: Set the service mode by JA304 & JA307 (short) then press factory process R/C RGB key to change to RGB mono colour mode.** * For the following colours press R/C RGB(Hex 7E) key to change. 	 Fig. 1-1  Fig. 1-2 Rank "A" (on the right of the CRT)  Fig. 1-3 Rank "A" (on the left of the CRT) * Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode.

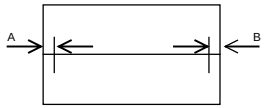
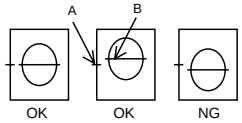
CONVERGENCE ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**CONVERGENCE ADJ. (To be done after the purity adjustment.)**	1. Receive the "Crosshatch Pattern" signal. 2. Using the remote controller, call NORMAL mode. **Static convergence** 1. Turn the 4-pole magnet to a proper opening angle in order to superpose the blue and red colours. 2. Turn the 6-pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours. **Dynamic convergence** 1. Adjust the convergence on the fringes of the screen in the following steps. a) Fig. a: Drive the wedge at point "a" and swing the deflection coil upward. b) Fig. b: Drive the wedge at point "b" and "c" and swing the deflection coil downward. c) Fig. c: Drive the "c" wedge deeper and swing the deflection coil rightward. d) Fig. d: Drive the "b" wedge deeper and swing the deflection coil leftward. 2. Fix all the wedges on the CRT and apply glass tape over them. 3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole, 6-pole magnets) and magnet unit lock screw. Finally received the Red-only and Blue-only signals to make sure there is no other colours on the screen. 	 Fig. a  Fig. b  Fig. c  Fig. d 

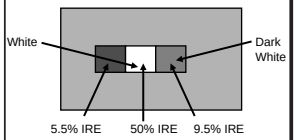
H-VCO, VIF-VCO & S-TRAP fo ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**H-VCO ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(MANUAL ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V03**. 3) Connect oscilloscope to **IC801 pin11**, adj **V03** until freq become **15.625 ± 0.15 KHz** **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode. 3) Choose service data **V03**, by pressing R/C **Auto (Hex C1)** key, OSD will appear “OK” at screen. 4) If appear “NG” pls repeat step 3.	
2	**VIF-VCO ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02**. 3) Connect oscilloscope to **IC801 pin2**, adj **V02** until voltage become **2.5 ± 1 V**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02.** 3) Press the R/C **Auto (Hex C1)** key, OSD will appear “OK” at screen. 4) If appear “NG” pls repeat step 3.	**Note: This adjustment must be done after aging at least 3 minutes.**
3	**S-TRAP fo ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. 3) Connect oscilloscope to **TP 801,** adj **V21** until voltage become **Min** (below 5 V). 4) After that pls adj service data **V20 & V24 same as “V21”, V22 to “V21-1”, V23 to “V21+2”**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. 3) Press the R/C **Auto (Hex C1)** key, OSD will appear “OK” at screen. 4) If appear “NG” pls repeat step 3.	

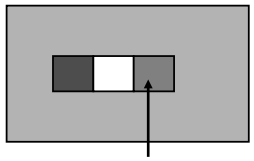
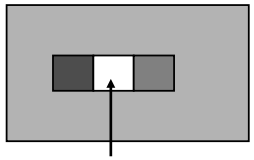
HORIZONTAL, VERTICAL, DEFLECTION LOOP and FOCUS ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**H-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V13**. 3) Adjust the **V13** bus data to have a balance position to spec of **A=B** (as attach drawing) 4) If cannot make it to **A=B**, adjust from the best point so that **B** slightly smaller than **A**.	
2	**V-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V12**. 3) Adjust **V12** bus data to have a most acceptable vertical position, the monoscope pattern should be **Balance** in vertical position. **Note: B line (monoscope middle line) must same or nearest higher position to A mark (tube middle mark) refer to attach drawing.**	
3	**V-SIZE (I^2C BUS CONTROL) (to be done after purity, V-shift adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V11**. 3) Adjust **V11** bus data until the overscan become **10 ± 1.5 %** **Caution1: Pls aging TV more than 10 minutes before adjustment.** **Caution2: for H-shift & V-shift & V-size adj, after adj pls switch to Monoscope pattern signal (NTSC 60 Hz) to confirm all positions are the same.**	
4	**SUB-SHARPNESS**	1) Confirm Service data **V08** is **43**.	
5	**Focus**	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Adjust the focus control to get the best focusing.	

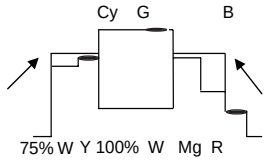
SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (1) ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SCREEN ADJUSTMENT (I^2C BUS CONTROL)**	1) In window pattern signal condition. 2) Go to service mode, then select V00. 3) By pressing R/C key **S-Mute(Hex E8)**, **R-D** auto switch to **63**, **B-D** auto switch to **63**, **R-C** auto switch to **127**, **G-C** auto switch to **127**, **B-C** auto switch to **127**, **Sub-Brightness V06** auto switch to **127**. Y-mute & Vertical off, screen will be in **vertical cut-off** condition. 4) Adjust the Screen so that cut-off line appear in low bright, then judge that whether the cut-off line appear in Red or Green or Blue colour, in this condition between R-C & G-C & B-C, **fix** the data of the **colour appear in cut-off line** and **adj the other two cut-off data(Note1)** so that cut-off line colour become **white**. 5)Turn the screen VR of FBT so that cut-off line just **disappear** and use R/C by pressing key **S-Mute (Hex E8)** to **disable** the Y-mute & V-cut so that picture appear in normal mode.	Note 1: R-CUTOFF(R-C)UP RC key "1"(HEX 80) R-CUTOFF(R-C)DOWN RC key "4"(HEX 20) G-CUTOFF(G-C)UP RC key "2"(HEX 40) G-CUTOFF(G-C)DOWN RC key "5"(HEX A0) B-CUTOFF(B-C)UP RC key "3"(HEX C0) B-CUTOFF(B-C)DOWN RC key "6"(HEX 60) R-DRIVE(R-D)UP RC key "7"(HEX E0) R-DRIVE(R-D)DOWN RC key "Flashback"(HEX E4) B-DRIVE(B-D)UP RC key "8"(HEX 10) B-DRIVE(B-D)DOWN RC key "0"(HEX 50)
2	**WHITE BAL-ANCE ADJ (to be done after screen adj) (I^2C BUS CONTROL)**	**1) WHITE (HIGH BEAM)** (In Window Pattern Signal) First use Minolta Colour Analyzer CA100, let the gun point at **Dark White** position (as drawing attach), Adj **V06** until **LUMINANCE Y** become **5 cd/m2**, then let the gun point at **White** position (as drawing attach), Adj **V04** until **LUMINANCE Y** become **200 cd/m2**. Adj the **R-D** & **B-D** until the axis of colour temperature become. **** X=300, Y=310 7500 K** **2) DARK WHITE (LOW BEAM)** (In Window Pattern Signal) Let the gun point at **Dark White** position, if the colour temperature data shift away from the data adjusted in **step 1**, adjust **R-C,G-C & B-C but between them, first colour appears in Screen adj item 1)-4 is fixed**, adj the other two so that to obtain the similar axis as above. ****Repeat steps 1 & 2 to get a regulated position.**	WINDOW PATTERN SIGNAL  ***Note :** **Signal using W/B Pattern Generator SX-1006 (IWATSU) or equivalent.** **Window Pattern Signal output level are as above.**

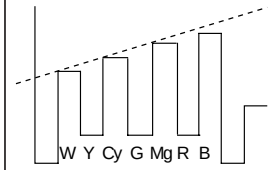
SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (2) ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
3	**SUB-BRIGHTNESS (to be done after screen, white balance adj) (I²C BUS CONTROL)**	1) In window pattern signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at **Dark White** position (as attach drawing), adjust **V06** Bus data until **LUMINANCE Y = 3 ± 0.5 cd/m2**.	 WINDOW PATTERN SIGNAL
4	**SUB-CONTRAST (to be done after screen, white balance adj, sub-brightness adj) (I²C BUS CONTROL)**	1) In Window Pattern Signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at White position (as attach drawing), adjust **V04** Bus data until **LUMINANCE Y = 200 ± 10 cd/m2.**	 WINDOW PATTERN SIGNAL
5	**Beam Current Check**	1) Receive the “Monoscope Pattern” signal. 2) Press R/C to set Picture NORMAL condition. 3) Connect the DC miliammeter between TP 603 (+) & TP 602 (-). (Full Scale: 3mA Range) 4) Beam current must be within **1000 ± 100μA**.	

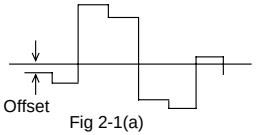
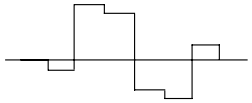
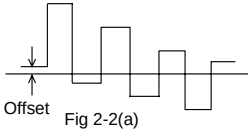
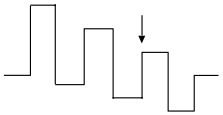
PAL CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SUB COLOUR (I²C BUS CONTROL) (to be done after sub-picture, sub-tint adj)**	1) Receive the “PAL Colour Bar” signal. 2) Press R/C to set Picture Normal condition. 3) Connect the oscilloscope to R-Amp Transistor Base**(TP 851)**. Range : 100 mV/Div (AC) (Using 10:1 Probe) Sweep Time : 10 μ sec/Div 4) Using the R/C call **V05** in SERVICE mode. Adjust **V05** bus data, so that the 75% White & Red portions of PAL Colour Bar be at the **same level** shown as Fig 1-1. 5) Clear the SERVICE mode.	 Fig. 1-1

NTSC CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SUB-TINT (I²C BUS CONTROL)**	1) Receive the "NTSC3.58 Colour Bar" signal thru AV in. 2) Connect the oscilloscope to B-Amp Transistor Base **(TP853)**. ● Range : 100mV/Div (AC)(Use Probe 10:1) ● Sweep time : 10 μsec/Div 3) In Service mode, go to **V07**, then press **R/C Y-mute(Hex E4) or FLASHBACK key**. 4) Call the "**V07**" data in service mode. Adjust the "**V07**" bus data to obtain the waveform shown as Figure 1-1. 5) Disable **Y-Mute** by pressing **key(Hex E4) or FLASHBACK**, then clear the SERVICE mode.	 Fig. 1-1

SECAM CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SECAM BLACK LEVEL R-Y/B-Y (I²C BUS CONTROL)**	1) Receive “SECAM COLOUR BAR” signal. 2) In the service mode, select service data **V14**. 3) Connect oscilloscope to **TP 801**. ● Range : 20mV/Div (AC)(Use 10:1 probe) ● Sweep time : 20 μsec/Div 4) Adjust the **V14** so that the offset of R-Y to minimum, shown in **Fig 2-1(b)**, it means adjust the offset of between No signal line and Signal line to minimum. 5) In the service mode, select service data **V15**. 6) Connect oscilloscope to **TP 801**. ● Range : 20mV/Div (AC)(Use 10:1 probe) ● Sweep time : 20 μsec/Div 7) Adjust the **V15** so that the offset of B-Y to minimum, shown in **Fig 2-2(b)**, it means adjust the offset of between No signal line and Signal line to minimum.	 Fig 2-1(a)  Fig 2-1(b)  Fig 2-2(a)  Fig 2-2(b)

SIF (NICAM/A2) ADJUSTMENT

No.	Adjustment point	Adjusting condition/procedure	Waveform or others
1	**VCO COIL T2300**	1. Receive “PAL COLOUR BAR” signal. 2. Connect DC Voltmater to Main Board socket **SC304 pin 1**. 3. Check and turn T2300 counter-clockwise (Left) so that DC voltmeter appear 0V, then turn it clock-wise (Right) so that DC voltmeter appear 5V. After that , turn **T2300** counter-clockwise (Left) until DC voltmeter appear **2.5 ± 0.1 Vdc**. ** UNIT BOARD ADJUSTMENT Vcc 5V ± 0.1Vdc IF Input Freq 38.9MHz ± 10KHz Adjust T2300 until TP2300 (NICAM BOARD TEST POINT) become 2.5 ± 0.1Vdc. Check after assembly NICAM BOARD Test point: Main Board socket SC304 pin 1. Preset selected receptiion frequency (AFT OFF) Check Voltage 2.5 ± 0.1Vdc. **Precaution: The Vcc, fo and other factors are considered in the unit board of the 1.0V tolerance which differ from the adjustment accuracy.**	

PROTECTOR OPERATION CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**BEAM PRO-TECTOR**	1) Receive "Monoscope Pattern" signal. 2) Set CONTRAST MAX. 3) Set BRIGHT MAX. 4) During the Collector & Emitter of **Q853/4/5** short, make sure the protector ON and switch to standby mode.	* Select one of Q853/4/5 to do each short.
2	**H, V PROTEC-TOR**	1) Receive "Monoscope Pattern" signal. 2) Connect output of Bias Box to **D602** cathode (C602 positive). 3) Set voltage of Bias Box to **18V** and make sure the protector is not working. 4) Set voltage of Bias Box to **24.5V**, and make sure the protector is working.	
3	**OTHER PRO-TECTOR**	1) Once finish rectified Electrolytic Capacitor short testing in +B line, check all possible damaged components on +B line. (Use random selected set for inspection)	

A/V INPUT, OUTPUT & COMPONENT IN CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**VIDEO AND AUDIO OUTPUT CHECK**	1) Receive the "PAL Colour Bar" signal (100% White Colour Bar, Sound 400 Hz 100% Mod.) 2) Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified **(1.0 Vp-p ±3 dB)**. 3) Terminate the Audio output with a 10K ohm impedance. Make sure the output is as specified **(1.2 Vp-p ±3 dB)**.	
2	**VIDEO AND AUDIO INPUT CHECK**	1) Using the TV/VIDEO key on the remote controller, make sure that the modes change in order of TV, AV1, **AV2** & TV again and the video & audio output are according to the input terminal for each mode.	
3	**COMPONENT IN CHECK**	1) Connect YUV & Audio signal to Component In terminal and Audio terminal. 2) Using the TV/VIDEO key on the remote controller, press it until the modes change to COMPONENT, confirm output appears.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**CONTRAST key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select CONTRAST. 3) Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	**COLOUR key**	1) Receive "Colour Bar" signal. 2) Set MENU, then go into PICTURE mode to select COLOUR. 3) Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	**BRIGHTNESS key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select BRIGHTNESS. 3) Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not.	
4	**TINT key**	1) Receive the "NTSC Colour Bar" signal thru AV in. 2) Set MENU, then go into PICTURE mode to select TINT. 3) Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for PURPLE direction whether is OK or not.	
5	**SHARPNESS Key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select SHARPNESS. 3) Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	**CH DISPLAY COLOUR**	1) All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition.	
7	**WHITE TEMP**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select WHITE TEMP. 3) Press Volume Up/Down key to check WHITE TEMP function. The back ground will change to (shift right) bluish and (shift left) reddish.	
8	**NORMAL Key**	1) Once in PICTURE or SOUND Mode, and the NORMAL key is pressed, all the settings will be preset to normal setting accordingly. (Normal setting value for every mode). **PICTURE MODE** • CONTRAST : MAX • COLOUR : CENTER • BRIGHTNESS : CENTER • TINT : CENTER • SHARPNESS : CENTER • WHITE TEMP : CENTER **SOUND MODE** • SURROUND : OFF • TREBLE : CENTER • BASS : CENTER • BALANCE : CENTER	**Note:** **In NORMAL Mode, when NORMAL key is pressed, NORMAL OSD will appear and all settings of PICTURE, SOUND functions are set to NORMAL.**

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) CONTINUED

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
9	**COLOUR SYSTEM**	1) Receive the "PAL COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly. 2) Receive "SECAM COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly. 3) Receive "NTSC 4.43" signal, press MENU, choose CH-SETTING to select COLOUR modes except N443, check the COLOUR is not working properly. Then, select the N443 mode. Check again its colour so that it is working properly. 4) Receive "NTSC 3.58" signal, press MENU, choose CH-SETTING to select COLOUR modes except N358, check the COLOUR is not working properly. Then, select the N358 mode. Check again its colour so that it is working properly. 5) Receive "NTSC 3.58 COLOUR BAR" signal thru AV, press MENU, choose CH-SETTING to select COLOUR modes except N358, check the COLOUR is not working properly. Then, select the N358 mode. Check again its colour so that it is working properly.	
10	**SURROUND**	1) Receive "music" sound signal. 2) Set MENU, then go into SOUND MENU to select SURROUND. 3) Press VOLUME UP/DOWN key to check SURROUND I, II and OFF effect.	
11	**TREBLE**	1) Receive "music" sound signal. 2) Set MENU, then go into SOUND MENU to select TREBLE. 3) Press VOLUME UP/DOWN key to check whether the TREBLE effect is OK or not.	
12	**BASS**	1) Receive "music" sound signal. 2) Set MENU, then go into SOUND MENU to select BASS. 3) Press VOLUME UP/DOWN key to check whether the BASS effect is OK or not.	
13	**BALANCE**	1) Receive mono-tone signal. 2) Set MENU, then go into SOUND MENU to select BALANCE. 3) Press VOLUME UP/DOWN key to check whether the left to right BALANCE effect is OK or not.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) CONTINUED

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
14	**SOUND SYSTEM**	1) Receive “PAL-D/K” signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, M. Check the sound output is not working properly.Select D/K and check the sound output to make sure it is working properly. 2) Receive “PAL-I” signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, D/K, M. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly. 3) Receive “PAL-B/G” signal, press MENU, choose CH-SETTING then go into SOUND mode to select I, D/K, M. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly. 4) Receive “NTSC-M” signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, D/K. Check the sound output is not working properly. Select M and check the sound output to make sure it is working properly.	
15	**NOISE MUTE CHECKING**	1) Receive “PAL COLOUR BAR” signal. 2) Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. 3) Check the sound mute is effective. 4) Finally turn sound level of CTV to minimum.	
16	**OSD LANGUAGE QUANTITY CHECK**	Check OSD LANGUAGE quantity and type for respective models. (2 LANGUAGE) QUANTITY | ENGLISH | RUSSIAN 2 | O | O	

HEADPHONE JACK CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**HEADPHONE OUTPUT CHECKING**	1) Receive PAL COLOUR BAR with SOUND 400Hz, 100% MODULATION (±50kHz Dev). 2) Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker.	

SHOCK TEST CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SHOCK TEST**	1) Hit at the top of TV set for two time. 2) Check TV set not damage and TV operation operate correctly.	

ROM-CORRECTION CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**ROM-CORRECTION CHECK**	1) Go to the service mode, then go to Check mode by pressing "MENU" button until the attach service items appears. 2) Check the ROM-correction status by monitoring the screen, follow the model's setting Micon version | CHK1 | CHK2 A319WJN4 (ver 2.11) | ACT | ACT CHK1: OFF SET YUV BKGD (+15) & 21HD7 0=>1 CHK2: NICAM MUTE WHEN AV	INFO SLV1 0 0 SLV2 0 0 SLV3 0 0 SLV4 0 0 SLV5 0 0 MICON:N4 CHK1:ACT SOFT:2.11 CHK2:ACT

MEMORY MAP

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
00	EEPROM INITIALIZATION JUDGEMENT BYTE-0								7A	00-FF							
01	EEPROM INITIALIZATION JUDGEMENT BYTE-1								73	00-FF							
02	EEPROM INITIALIZATION JUDGEMENT BYTE-2								71	00-FF							
03	EEPROM INITIALIZATION JUDGEMENT BYTE-3								79	00-FF							
04	ROM VERSION								00	00-FF							
05	SOFTWARE VERSION (HIGH BYTE)								**02**	00-FF							(2) Change default value 01 to 02.
06	SOFTWARE VERSION (LOW BYTE)								**0B**	00-FF							(1) Change default value 14 to 1B. (2) Change default value 1B to 0B.
07																	
08	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 0
09	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 1
0B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 2
0D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 3
0F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
10	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 4
11	TUNING FREQUENCY (HIGH BYTE)									00-FF							
12	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 5
13	TUNING FREQUENCY (HIGH BYTE)									00-FF							
14	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 6
15	TUNING FREQUENCY (HIGH BYTE)									00-FF							
16	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 7
17	TUNING FREQUENCY (HIGH BYTE)									00-FF							
18	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 8
19	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 9
1B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 10
1D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 11
1F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
20	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 12
21	TUNING FREQUENCY (HIGH BYTE)									00-FF							
22	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 13
23	TUNING FREQUENCY (HIGH BYTE)									00-FF							
24	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 14
25	TUNING FREQUENCY (HIGH BYTE)									00-FF							
26	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 15
27	TUNING FREQUENCY (HIGH BYTE)									00-FF							
28	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 16
29	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 17
2B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 18
2D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 19
2F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
30	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 20
31	TUNING FREQUENCY (HIGH BYTE)									00-FF							
32	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 21
33	TUNING FREQUENCY (HIGH BYTE)									00-FF							
34	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 22
35	TUNING FREQUENCY (HIGH BYTE)									00-FF							
36	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 23
37	TUNING FREQUENCY (HIGH BYTE)									00-FF							
38	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 24
39	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 25
3B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 26
3D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 27
3F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
40	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 28
41	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 29
43	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 30
45	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 31
47	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 32
49	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 33
4B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 34
4D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 35
4F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 36
51	TUNING FREQUENCY (HIGH BYTE)									00-FF							
52	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 37
53	TUNING FREQUENCY (HIGH BYTE)									00-FF							
54	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 38
55	TUNING FREQUENCY (HIGH BYTE)									00-FF							
56	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 39
57	TUNING FREQUENCY (HIGH BYTE)									00-FF							
58	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 40
59	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 41
5B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 42
5D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 43
5F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
60	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 44
61	TUNING FREQUENCY (HIGH BYTE)									00-FF							
62	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 45
63	TUNING FREQUENCY (HIGH BYTE)									00-FF							
64	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 46
65	TUNING FREQUENCY (HIGH BYTE)									00-FF							
66	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 47
67	TUNING FREQUENCY (HIGH BYTE)									00-FF							
68	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 48
69	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 49
6B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 50
6D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 51
6F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
70	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 52
71	TUNING FREQUENCY (HIGH BYTE)									00-FF							
72	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 53
73	TUNING FREQUENCY (HIGH BYTE)									00-FF							
74	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 54
75	TUNING FREQUENCY (HIGH BYTE)									00-FF							
76	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 55
77	TUNING FREQUENCY (HIGH BYTE)									00-FF							
78	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 56
79	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 57
7B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 58
7D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 59
7F	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
A3HE1HFV5J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
80	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 60
81	TUNING FREQUENCY (HIGH BYTE)									00-FF							
82	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 61
83	TUNING FREQUENCY (HIGH BYTE)									00-FF							
84	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 62
85	TUNING FREQUENCY (HIGH BYTE)									00-FF							
86	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 63
87	TUNING FREQUENCY (HIGH BYTE)									00-FF							
88	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 64
89	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 65
8B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 66
8D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 67
8F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
90	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 68
91	TUNING FREQUENCY (HIGH BYTE)									00-FF							
92	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 69
93	TUNING FREQUENCY (HIGH BYTE)									00-FF							
94	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 70
95	TUNING FREQUENCY (HIGH BYTE)									00-FF							
96	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 71
97	TUNING FREQUENCY (HIGH BYTE)									00-FF							
98	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 72
99	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 73
9B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 74
9D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 75
9F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 76
A1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 77
A3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 78
A5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 79
A7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 80
A9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 81
AB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 82
AD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 83
AF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 84
B1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 85
B3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 86
B5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 87
B7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 88
B9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 89
BB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 90
BD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 91
BF	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
A3HE1HFV5J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
C0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 92
C1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 93
C3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 94
C5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 95
C7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 96
C9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 97
CB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 98
CD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 99
CF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
D0		FAVORITE CHANNEL 1							0A	00-65							POS 10
D1		FAVORITE CHANNEL 2							14	00-65							POS 20
D2		FAVORITE CHANNEL 3							1E	00-65							POS 30
D3		FAVORITE CHANNEL 4							28	00-65							POS 40
D4			LAST CONTRAST						3C	00-3C							
D5			LAST COLOUR						1E	00-3C							
D6			LAST BRIGHTNESS						1E	00-3C							
D7			LAST TINT						1E	00-3C							
D8			LAST SHARPNESS						1E	00-3C							
D9							LAST WHITE TEMP.		01	00-02							
DA							LAST SURROUND MODE		00	00-02							
DB			LAST TREBLE						1E	00-3C							
DC			LAST BASS						1E	00-3C							
DD			LAST BALANCE						1E	00-3C							
DE								**S-Booster**	**01**	**00-01**							(2) Add S-Booster mode for user setting on SOUND menu.
DF																	
E0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	FF	00-FF							
E1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	FF	00-FF							
E2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	FF	00-FF							
E3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	FF	00-FF							
E4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	FF	00-FF							
E5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	FF	00-FF							
E6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	FF	00-FF							1= AFT ON, 0=AFT OFF
E7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	FF	00-FF							
E8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	FF	00-FF							
E9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	FF	00-FF							
EA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	FF	00-FF							
EB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	FF	00-FF							
EC					POS99	POS98	POS97	POS96	FF	00-0F							
ED																	
EE	Blue Back	1/2 digit	TEXT			LANGUAGE			48	00-FF							
EF			LAST VOLUME						00	00-3C							
F0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	01	00-FF							
F1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	00	00-FF							
F2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	00	00-FF							
F3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	00	00-FF							
F4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	00	00-FF							
F5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	00	00-FF							
F6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	00	00-FF							1= SKIP ON, 0=SKIP OFF
F7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	00	00-FF							
F8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	00	00-FF							
F9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	00	00-FF							
FA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	00	00-FF							
FB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	00	00-FF							
FC					POS99	POS98	POS97	POS96	00	00-0F							
FD	POWER								AA	AA(On), 55(Off)							
FE	ON TIMER VOLUME								FF	00-3C, FF							
FF	ON TIMER CHANNEL								FF	00-65, FF							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
100			S-SYSTEM (POS0)			C-SYSTEM (POS0)			00	00-34							
101			S-SYSTEM (POS1)			C-SYSTEM (POS1)			00	00-34							S-SYSTEM
102			S-SYSTEM (POS2)			C-SYSTEM (POS2)			00	00-34							0: B/G
103			S-SYSTEM (POS3)			C-SYSTEM (POS3)			00	00-34							1: I
104			S-SYSTEM (POS4)			C-SYSTEM (POS4)			00	00-34							2: D/K
105			S-SYSTEM (POS5)			C-SYSTEM (POS5)			00	00-34							3: M
106			S-SYSTEM (POS6)			C-SYSTEM (POS6)			00	00-34							
107			S-SYSTEM (POS7)			C-SYSTEM POS7)			00	00-34							C-SYSTEM
108			S-SYSTEM (POS8)			C-SYSTEM (POS8)			00	00-34							0: AUTO
109			S-SYSTEM (POS9)			C-SYSTEM (POS9)			00	00-34							1: PAL
10A			S-SYSTEM (POS10)			C-SYSTEM (POS10)			00	00-34							2:SECAM
10B			S-SYSTEM (POS11)			C-SYSTEM (POS11)			00	00-34							3: N443
10C			S-SYSTEM (POS12)			C-SYSTEM (POS12)			00	00-34							4:N358
10D			S-SYSTEM (POS13)			C-SYSTEM (POS13)			00	00-34							
10E			S-SYSTEM (POS14)			C-SYSTEM (POS14)			00	00-34							
10F			S-SYSTEM (POS15)			C-SYSTEM (POS15)			00	00-34							
110			S-SYSTEM (POS16)			C-SYSTEM (POS16)			00	00-34							
111			S-SYSTEM (POS17)			C-SYSTEM (POS17)			00	00-34							
112			S-SYSTEM (POS18)			C-SYSTEM (POS18)			00	00-34							
113			S-SYSTEM (POS19)			C-SYSTEM (POS19)			00	00-34							
114			S-SYSTEM (POS20)			C-SYSTEM (POS20)			00	00-34							
115			S-SYSTEM (POS21)			C-SYSTEM (POS21)			00	00-34							
116			S-SYSTEM (POS22)			C-SYSTEM (POS22)			00	00-34							
117			S-SYSTEM (POS23)			C-SYSTEM (POS23)			00	00-34							
118			S-SYSTEM (POS24)			C-SYSTEM (POS24)			00	00-34							
119			S-SYSTEM (POS25)			C-SYSTEM (POS25)			00	00-34							
11A			S-SYSTEM (POS26)			C-SYSTEM (POS26)			00	00-34							
11B			S-SYSTEM (POS27)			C-SYSTEM (POS27)			00	00-34							
11C			S-SYSTEM (POS28)			C-SYSTEM (POS28)			00	00-34							
11D			S-SYSTEM (POS29)			C-SYSTEM (POS29)			00	00-34							
11E			S-SYSTEM (POS30)			C-SYSTEM (POS30)			00	00-34							
11F			S-SYSTEM (POS31)			C-SYSTEM (POS31)			00	00-34							
120			S-SYSTEM (POS32)			C-SYSTEM (POS32)			00	00-34							
121			S-SYSTEM (POS33)			C-SYSTEM (POS33)			00	00-34							
122			S-SYSTEM (POS34)			C-SYSTEM (POS34)			00	00-34							
123			S-SYSTEM (POS35)			C-SYSTEM (POS35)			00	00-34							
124			S-SYSTEM (POS36)			C-SYSTEM (POS36)			00	00-34							
125			S-SYSTEM (POS37)			C-SYSTEM (POS37)			00	00-34							
126			S-SYSTEM (POS38)			C-SYSTEM (POS38)			00	00-34							
127			S-SYSTEM (POS39)			C-SYSTEM (POS39)			00	00-34							
128			S-SYSTEM (POS40)			C-SYSTEM (POS40)			00	00-34							
129			S-SYSTEM (POS41)			C-SYSTEM (POS41)			00	00-34							
12A			S-SYSTEM (POS42)			C-SYSTEM (POS42)			00	00-34							
12B			S-SYSTEM (POS43)			C-SYSTEM (POS43)			00	00-34							
12C			S-SYSTEM (POS44)			C-SYSTEM (POS44)			00	00-34							
12D			S-SYSTEM (POS45)			C-SYSTEM (POS45)			00	00-34							
12E			S-SYSTEM (POS46)			C-SYSTEM (POS46)			00	00-34							
12F			S-SYSTEM (POS47)			C-SYSTEM (POS47)			00	00-34							
130			S-SYSTEM (POS48)			C-SYSTEM (POS48)			00	00-34							
131			S-SYSTEM (POS49)			C-SYSTEM (POS49)			00	00-34							
132			S-SYSTEM (POS50)			C-SYSTEM (POS50)			00	00-34							
133			S-SYSTEM (POS51)			C-SYSTEM (POS51)			00	00-34							
134			S-SYSTEM (POS52)			C-SYSTEM (POS52)			00	00-34							
135			S-SYSTEM (POS53)			C-SYSTEM (POS53)			00	00-34							
136			S-SYSTEM (POS54)			C-SYSTEM (POS54)			00	00-34							
137			S-SYSTEM (POS55)			C-SYSTEM (POS55)			00	00-34							
138			S-SYSTEM (POS56)			C-SYSTEM (POS56)			00	00-34							
139			S-SYSTEM (POS57)			C-SYSTEM (POS57)			00	00-34							
13A			S-SYSTEM (POS58)			C-SYSTEM (POS58)			00	00-34							
13B			S-SYSTEM (POS59)			C-SYSTEM (POS59)			00	00-34							
13C			S-SYSTEM (POS60)			C-SYSTEM (POS60)			00	00-34							
13D			S-SYSTEM (POS61)			C-SYSTEM (POS61)			00	00-34							
13E			S-SYSTEM (POS62)			C-SYSTEM (POS62)			00	00-34							
13F			S-SYSTEM (POS63)			C-SYSTEM (POS63)			00	00-34							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
140			S-SYSTEM (POS64)			C-SYSTEM (POS64)			00	00-34							
141			S-SYSTEM (POS65)			C-SYSTEM (POS65)			00	00-34							
142			S-SYSTEM (POS66)			C-SYSTEM (POS66)			00	00-34							
143			S-SYSTEM (POS67)			C-SYSTEM (POS67)			00	00-34							
144			S-SYSTEM (POS68)			C-SYSTEM (POS68)			00	00-34							
145			S-SYSTEM (POS69)			C-SYSTEM (POS69)			00	00-34							
146			S-SYSTEM (POS70)			C-SYSTEM (POS70)			00	00-34							
147			S-SYSTEM (POS71)			C-SYSTEM POS71)			00	00-34							
148			S-SYSTEM (POS72)			C-SYSTEM (POS72)			00	00-34							
149			S-SYSTEM (POS73)			C-SYSTEM (POS73)			00	00-34							
14A			S-SYSTEM (POS74)			C-SYSTEM (POS74)			00	00-34							
14B			S-SYSTEM (POS75)			C-SYSTEM (POS75)			00	00-34							
14C			S-SYSTEM (POS76)			C-SYSTEM (POS76)			00	00-34							
14D			S-SYSTEM (POS77)			C-SYSTEM (POS77)			00	00-34							
14E			S-SYSTEM (POS78)			C-SYSTEM (POS78)			00	00-34							
14F			S-SYSTEM (POS79)			C-SYSTEM (POS79)			00	00-34							
150			S-SYSTEM (POS80)			C-SYSTEM (POS80)			00	00-34							
151			S-SYSTEM (POS81)			C-SYSTEM (POS81)			00	00-34							
152			S-SYSTEM (POS82)			C-SYSTEM (POS82)			00	00-34							
153			S-SYSTEM (POS83)			C-SYSTEM (POS83)			00	00-34							
154			S-SYSTEM (POS84)			C-SYSTEM (POS84)			00	00-34							
155			S-SYSTEM (POS85)			C-SYSTEM (POS85)			00	00-34							
156			S-SYSTEM (POS86)			C-SYSTEM (POS86)			00	00-34							
157			S-SYSTEM (POS87)			C-SYSTEM (POS87)			00	00-34							
158			S-SYSTEM (POS88)			C-SYSTEM (POS88)			00	00-34							
159			S-SYSTEM (POS89)			C-SYSTEM (POS89)			00	00-34							
15A			S-SYSTEM (POS90)			C-SYSTEM (POS90)			00	00-34							
15B			S-SYSTEM (POS91)			C-SYSTEM (POS91)			00	00-34							
15C			S-SYSTEM (POS92)			C-SYSTEM (POS92)			00	00-34							
15D			S-SYSTEM (POS93)			C-SYSTEM (POS93)			00	00-34							
15E			S-SYSTEM (POS94)			C-SYSTEM (POS94)			00	00-34							
15F			S-SYSTEM (POS95)			C-SYSTEM (POS95)			00	00-34							
160			S-SYSTEM (POS96)			C-SYSTEM (POS96)			00	00-34							
161			S-SYSTEM (POS97)			C-SYSTEM (POS97)			00	00-34							
162			S-SYSTEM (POS98)			C-SYSTEM (POS98)			00	00-34							
163			S-SYSTEM (POS99)			C-SYSTEM (POS99)			00	00-34							
164		C-SYSTEM (AV2)				C-SYSTEM (AV1)			00	00-44							
165																	
166																	(2) Remove SLV1~SLV6 to Sheet EEPROM MAP08(1C0H~1CBH)
167																	
168																	
169																	
16A																	
16B																	
16C																	
16D																	
16E																	
16F																	
170																	
171																	
172																	
173							TV/AV		00	0(TV), 1(AV1), 2(AV2)							
174		LAST CHANNEL POSITION							01	00-63							
175	FLASH BACK POSITION								01	00-FF							
176	ROM CORRECTION-1 ID									00-FF							
177	ROM CORRECTION-1 HIGH BYTE ADDRESS									00-FF							
178	ROM CORRECTION-1 LOW BYTE ADDRESS									00-FF							
179	ROM CORRECTION-1 DATA LENGTH									00-FF							
17A	ROM CORRECTION-1 CHECKSUM									00-FF							
17B	ROM CORRECTION-2 ID									00-FF							
17C	ROM CORRECTION-2 HIGH BYTE ADDRESS									00-FF							
17D	ROM CORRECTION-2 LOW BYTE ADDRESS									00-FF							
17E	ROM CORRECTION-2 DATA LENGTH									00-FF							
17F	ROM CORRECTION-2 CHECKSUM									00-FF							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
180	ROM CORRECTION-1 CODE									00-FF							
181	ROM CORRECTION-1 CODE									00-FF							
182	ROM CORRECTION-1 CODE									00-FF							
183	ROM CORRECTION-1 CODE									00-FF							
184	ROM CORRECTION-1 CODE									00-FF							
185	ROM CORRECTION-1 CODE									00-FF							
186	ROM CORRECTION-1 CODE									00-FF							
187	ROM CORRECTION-1 CODE									00-FF							
188	ROM CORRECTION-1 CODE									00-FF							
189	ROM CORRECTION-1 CODE									00-FF							
18A	ROM CORRECTION-1 CODE									00-FF							
18B	ROM CORRECTION-1 CODE									00-FF							
18C	ROM CORRECTION-1 CODE									00-FF							
18D	ROM CORRECTION-1 CODE									00-FF							
18E	ROM CORRECTION-1 CODE									00-FF							
18F	ROM CORRECTION-1 CODE									00-FF							
190	ROM CORRECTION-1 CODE									00-FF							
191	ROM CORRECTION-1 CODE									00-FF							
192	ROM CORRECTION-1 CODE									00-FF							
193	ROM CORRECTION-1 CODE									00-FF							
194	ROM CORRECTION-1 CODE									00-FF							
195	ROM CORRECTION-1 CODE									00-FF							
196	ROM CORRECTION-1 CODE									00-FF							
197	ROM CORRECTION-1 CODE									00-FF							
198	ROM CORRECTION-1 CODE									00-FF							
199	ROM CORRECTION-1 CODE									00-FF							
19A	ROM CORRECTION-1 CODE									00-FF							
19B	ROM CORRECTION-1 CODE									00-FF							
19C	ROM CORRECTION-1 CODE									00-FF							
19D	ROM CORRECTION-1 CODE									00-FF							
19E	ROM CORRECTION-1 CODE									00-FF							
19F	ROM CORRECTION-1 CODE									00-FF							
1A0	ROM CORRECTION-2 CODE									00-FF							
1A1	ROM CORRECTION-2 CODE									00-FF							
1A2	ROM CORRECTION-2 CODE									00-FF							
1A3	ROM CORRECTION-2 CODE									00-FF							
1A4	ROM CORRECTION-2 CODE									00-FF							
1A5	ROM CORRECTION-2 CODE									00-FF							
1A6	ROM CORRECTION-2 CODE									00-FF							
1A7	ROM CORRECTION-2 CODE									00-FF							
1A8	ROM CORRECTION-2 CODE									00-FF							
1A9	ROM CORRECTION-2 CODE									00-FF							
1AA	ROM CORRECTION-2 CODE									00-FF							
1AB	ROM CORRECTION-2 CODE									00-FF							
1AC	ROM CORRECTION-2 CODE									00-FF							
1AD	ROM CORRECTION-2 CODE									00-FF							
1AE	ROM CORRECTION-2 CODE									00-FF							
1AF	ROM CORRECTION-2 CODE									00-FF							
1B0	ROM CORRECTION-2 CODE									00-FF							
1B1	ROM CORRECTION-2 CODE									00-FF							
1B2	ROM CORRECTION-2 CODE									00-FF							
1B3	ROM CORRECTION-2 CODE									00-FF							
1B4	ROM CORRECTION-2 CODE									00-FF							
1B5	ROM CORRECTION-2 CODE									00-FF							
1B6	ROM CORRECTION-2 CODE									00-FF							
1B7	ROM CORRECTION-2 CODE									00-FF							
1B8	ROM CORRECTION-2 CODE									00-FF							
1B9	ROM CORRECTION-2 CODE									00-FF							
1BA	ROM CORRECTION-2 CODE									00-FF							
1BB	ROM CORRECTION-2 CODE									00-FF							
1BC	ROM CORRECTION-2 CODE									00-FF							
1BD	ROM CORRECTION-2 CODE									00-FF							
1BE	ROM CORRECTION-2 CODE									00-FF							
1BF	ROM CORRECTION-2 CODE									00-FF							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
1C0	SLV1 (HIGH)								00	00-FF							
1C1	SLV1 (LOW)								00	00-FF							
1C2	SLV2 (HIGH)								00	00-FF							
1C3	SLV2 (LOW)								00	00-FF							
1C4	SLV3 (HIGH)								00	00-FF							
1C5	SLV3 (LOW)								00	00-FF							(2) Remove from Sheet EEPROM MAP06(166H~171H)
1C6	SLV4 (HIGH)								00	00-FF							
1C7	SLV4 (LOW)								00	00-FF							
1C8	SLV5 (HIGH)								00	00-FF							
1C9	SLV5 (LOW)								00	00-FF							
1CA	SLV6 (HIGH)								00	00-FF							
1CB	SLV6 (LOW)								00	00-FF							
1CC	SLV7 (HIGH)								00	00-FF							(2) Add SLV7 for S-BOOSTER.
1CD	SLV7 (LOW)								00	00-FF							
1CE																	
1CF																	
1D0																	
1D1																	
1D2																	
1D3																	
1D4																	
1D5																	
1D6																	
1D7																	
1D8																	
1D9																	
1DA																	
1DB																	
1DC																	
1DD																	
1DE																	
1DF																	
1E0																	
1E1																	
1E2																	
1E3																	
1E4																	
1E5																	
1E6																	
1E7																	
1E8																	
1E9																	
1EA																	
1EB																	
1EC																	
1ED																	
1EE																	
1EF																	
1F0																	
1F1																	
1F2																	
1F3																	
1F4																	
1F5																	
1F6																	
1F7																	
1F8																	
1F9																	
1FA																	
1FB																	
1FC																	
1FD																	
1FE																	
1FF																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
200		R-DRIVE (V00)							3F	00-7F							
201		B-DRIVE (V00)							3F	00-7F							
202	R-CUTOFF (V00)								7F	00-FF							
203	G-CUTOFF (V00)								7F	00-FF							
204	B-CUTOFF (V00)								7F	00-FF							
205		RF-AGC (V01)							32	00-7F							
206			VIF-VCO (V02)						1F	00-3F							
207						H-VCO (V03)			03	00-07							
208		SUB CONTRAST (V04)							64	00-7F							
209		SUB COLOUR (V05)							3F	00-7F							
20A	SUB BRIGHTNESS (V06)								7F	00-FF							
20B		SUB TINT (V07)							3F	00-7F							
20C			SUB SHARPNESS (V08)						2B	00-3F							
20D		SUB-COLOUR-YUV (V09)							5A	00-7F							
20E		SUB-TINT-YUV (V10)							3F	00-7F							
20F			V-SIZE-50Hz (V11)						26	00-3F							
210						V-SHIFT-50Hz (V12)			03	00-07							
211				H-SHIFT-50Hz (V13)					09	00-1F							
212			SECAM BR (V14)						25	00-3F							
213			SECAM BB (V15)						16	00-3F							
214			SUB VOLUME (V16)						3C	00-3C							
215			V-SIZE-60Hz (V17)						1F	00-3E							
216					V-SHIFT-60Hz (V18)				06	00-0E							
217				H-SHIFT-60Hz (V19)					11	00-1E							
218					S-TRAP-BG (V20)				07	00-0F							
219					S-TRAP-I (V21)				07	00-0F							
21A					S-TRAP-DK (V22)				07	00-0F							
21B					S-TRAP-M (V23)				07	00-0F							
21C					S-TRAP-574 (V24)				07	00-0F							
21D																	
21E																	
21F																	
220																	
221																	
222																	
223																	
224																	
225																	
226																	
227																	
228																	
229																	
22A																	
22B																	
22C																	
22D																	
22E																	
22F																	
230		S-OUT-LEVEL (F11)							5F	00-7F							
231						VIF-G (F12)			04	00-07							
232						YDL (F18)			05	00-07							
233						YDL-PAL (F19)			05	00-07							
234						YDL-SECAM (F20)			07	00-07							
235						YDL-N443 (F21)			05	00-07							
236						YDL-N358 (F22)			05	00-07							
237						YDL-AV (F23)			06	00-07							
238						YDL-AV-PAL (F24)			06	00-07							
239						YDL-AV-SECAM (F25)			07	00-07							
23A						YDL-AV-N443 (F26)			06	00-07							
23B						YDL-AV-N358 (F27)			06	00-07							
23C						YDL-YUV (F28)			06	00-07							
23D			COLOUR-AV (F29)						29	00-3E							
23E			COLOUR-PAL (F30)						1F	00-3E							
23F			COLOUR-SECAM (F31)						28	00-3E							
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
240			COLOUR-N443 (F32)						17	00-3E							
241			COLOUR-N358 (F33)						18	00-3E							
242			COLUR-ADJ (F34)						1F	00-3E							
243			SHARPNESS-AV (F35)						24	00-3E							
244			SHARPNESS-YUV (F36)						1F	00-3E							
245			SHARPNESS-PAL (F37)						1F	00-3E							
246			SHARPNESS-SECAM (F38)						1A	00-3E							
247			SHARPNESS-N443 (F39)						1F	00-3E							
248			SHARPNESS-N358 (F40)						1F	00-3E							
249		TINT-AV (F41)							3F	00-7E							
24A		TINT-ADJ (F42)							3F	00-7E							
24B		TINT-YUV-ADJ (F43)							3F	00-7E							
24C		R-R DRIVE (F44)							47	00-7E							
24D		B-R DRIVE (F45)							35	00-7E							
24E		R-B DRIVE (F46)							3C	00-7E							
24F		B-B DRIVE (F47)							4F	00-7E							
250							TRAP (F53)		02	00-03							
251							TRAP-PAL (F54)		02	00-03							
252							TRAP-SECAM (F55)		02	00-03							
253							TRAP-N443 (F56)		02	00-03							
254							TRAP-N358 (F57)		02	00-03							
255							GAMMA (F62)		00	00-03							
256					BS-D/C (F63)				0A	00-0F							
257						SL-TV (F66)			02	00-07							
258						SL-AV (F67)			04	00-07							
259						SL-YUV (F68)			04	00-07							
25A					VD2/VD1/AS/FBP-TV (F69)				06	00-0F							
25B					VD2/VD1/AS/FBP-AV (F70)				0E	00-0F							
25C					VD2/VD1/AS/FBP-YUV (F71)				0E	00-0F							
25D							VDL (F72)		00	00-03							
25E							UDL (F73)		00	00-03							
25F							AUTO-SCM-KIL-TV (F74)		01	00-03							
260							SECAM-BGP (F76)		00	00-03							
261			TXT-POS-H (F80)						1E	00-3F							
262			TXT-POS-V (F81)						22	00-3F							
263		OSD-POS (F82)							09	00-7F							
264						SUB-BASS (F85)			06	00-07							
265						SUB-TREBLE (F86)			00	00-07							
266						AGC-ADJ (F87)			00	00-04							
267				AGC-GAIN-ADJUST (F89)					**10**	00-1F							(1) Change default value 00 to 10.
268				FM-LEVEL-ADJUST (F90)					0F	00-1E							
269				IGR-LEVEL-ADJUST (F91)					10	00-1E							
26A				NICAM-BG-LEVEL-ADJUST (F92)					0D	00-1E							
26B				NICAM-I-LEVEL-ADJUST (F93)					12	00-1E							
26C				NICAM-DK-LEVEL-ADJUST (F94)					0E	00-1E							
26D	NICAM-LOWER-ERROR-LIMIT (F95)								23	00-FF							
26E	NICAM-UPPER-ERROR-LIMIT (F96)								46	00-FF							
26F					IGR-GAIN-ADJUST (F97)				06	00-0D							
270							FM-ID-SPEED (F98)		01	00-03							
271							AUTO-SCM-KIL-AV-YUV (F101)		01	00-03							
272							AFC1-GAIN-TV (F102)		00	00-03							
273							AFC1-GAIN-AV (F103)		03	00-03							
274							AFC1-GAIN-YUV (F104)		03	00-03							
275							CON-REDUCE (F105)		00	00-02							
276	STANDBY-WO-BRIGHT (F110)								FF	00-FF							
277	AC-FAIL-WO-BRIGHT (F111)								FF	00-FF							
278							FORCED-SCM-KIL-TV (F112)		02	00-03							
279							FORCED-SCM-KIL-AV-YUV (F113)		02	00-03							
27A	**VIDEO-DEMUTE-DELAY (F115)**								**00**	**00-FF**							(1) New Item F115.
27B	**SOUND-DEMUTE-DELAY (F116)**								**00**	**00-FF**							(1) New Item F116.
27C																	
27D																	
27E																	
27F																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
280	BS OFF (F08)	RGB CLIP (F07)	C.CLIP-LVL (F06)	STrapQ-574 (F05)	STrapQ-M (F04)	STrapQ-DK (F03)	STrapQ-I (F02)	STrapQ-BG (F01)	00	00-FF							
281	Ana-OSD (F100)	ABCL-G (F10)	ABCL (F09)	SHP-G-N3 (F17)	SHP-G-N4 (F16)	SHP-G-SCM (F15)	SHP-G-PAL (F14)	SHP-G (F13)	10	00-FF							
282	V-FREE (F60)	1W-AV (F59)	1W-TV (F58)	DT-N3 (F52)	DT-N4 (F51)	DT-S (F50)	DT-P (F49)	DT (F48)	44	00-FF							
283	PLL-CP (F83)	DL-Vout (F79)	DL-REV (F78)	N45 (F77)	SCM-YDL (F75)	OM DET (F65)	BS GAIN (F64)	AFC2 (F61)	80	00-FF							
284	AV2 (O11)	AV (O10)	Forced-Col (O08)	N358-TV (O07)	N443-TV (O06)	SECAM (O05)	VIF (O04)	HOTEL (O01)	DE	00-FF							
285	LED-CONT (O21)	R/C MENU (O20)	BIL (O17)	TEXT (O16)	A2 (O15)	NICAM (O14)	S-CTR (O13)	YUV (O12)	03	00-FF							
286					M (O09)	D/K (O09)	I (O09)	B/G (O09)	0F	01-0F							
287			Arabic (O18)	Malay (O18)	Russian (O18)	France (O18)	Chinese (O18)	Engilish (O18)	3F	01-3F							
288						SEARCH SPEED (O19)			03	01-05							
289	HOTEL CHANNEL POSITION (O02)								FF	00-63, FF							
28A	HOTEL VOLUME (O03)								FF	00-3C, FF							
28B						NICAM-AUTO-MUTE (F99)	AGC-SW-OFF (F88)	SMALL-SURR (F84)	**02**	00-07							(1) Change default value 00 to 02.
28C			**Pow-Storage (F127)**	**R-Y Adj. (F114)**	C-ANGLE (F109)	TAKE-OFF-YUV (F108)	TAKE-OFF-AV (F107)	TAKE-OFF-TV (F106)	09	**00-3F**							(1) Added R-Y Adj. (2) Add Pow-Storage
28D							**Sharp-logo (O23)**	**S-Booster (O22)**	**00**	**00-03**							(2) Add Sharp-logo and S-Booster.
28E	**MER (F117)**								**46**	**00-FF**							(2) Add MER
28F	**MEL1 (F118)**								**96**	**00-FF**							(2) Add MEL1
290	**MEL2 (F119)**								**9C**	**00-FF**							(2) Add MEL2
291	**MEL3 (F120)**								**A3**	**00-FF**							(2) Add MEL3
292	**MEL4 (F121)**								**A5**	**00-FF**							(2) Add MEL4
293	**MEL5 (F122)**								**AA**	**00-FF**							(2) Add MEL5
294	**MEL6 (F123)**								**B4**	**00-FF**							(2) Add MEL6
295			**S-Start Point (F124)**						**15**	**00-3C**							(2) Add S-Start Point
296			**S-Stop Point (F125)**						**3C**	**00-3C**							(2) Add S-Stop Point
297			**S-Step (F126)**						**07**	**00-3C**							(2) Add S-Step
298			**S-B-BASS (F128)**						**2D**	**00-3C**							(2) Add S-B-BASS
299			**S-B-TREB (F129)**						**2D**	**00-3C**							(2) Add S-B-TREB
29A			**S-BASS (F130)**						**3C**	**00-3C**							(2) Add S-BASS
29B			**S-TREB (F131)**						**3C**	**00-3C**							(2) Add S-TREB
29C																	
29D																	
29E																	
29F																	
2A0																	
2A1																	
2A2																	
2A3																	
2A4																	
2A5																	
2A6																	
2A7																	
2A8																	
2A9																	
2AA																	
2AB																	
2AC																	
2AD																	
2AE																	
2AF																	
2B0																	
2B1																	
2B2																	
2B3																	
2B4																	
2B5																	
2B6																	
2B7																	
2B8																	
2B9																	
2BA																	
2BB																	
2BC																	
2BD																	
2BE																	
2BF																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
2C0																	
2C1																	
2C2																	
2C3																	
2C4																	
2C5																	
2C6																	
2C7																	
2C8																	
2C9																	
2CA																	
2CB																	
2CC																	
2CD																	
2CE																	
2CF																	
2D0																	
2D1																	
2D2																	
2D3																	
2D4																	
2D5																	
2D6																	
2D7																	
2D8																	
2D9																	
2DA																	
2DB																	
2DC																	
2DD																	
2DE																	
2DF																	
2E0																	
2E1																	
2E2																	
2E3																	
2E4																	
2E5																	
2E6																	
2E7																	
2E8																	
2E9																	
2EA																	
2EB																	
2EC																	
2ED																	
2EE																	
2EF																	
2F0																	
2F1																	
2F2																	
2F3																	
2F4																	
2F5																	
2F6																	
2F7																	
2F8																	
2F9																	
2FA																	
2FB																	
2FC																	
2FD																	
2FE																	
2FF																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

*1 0 : individually selectable rating system 1 : threshold selectable rating system

*2 0 : CATEGORY bit mask with (01,05) 1st character 1 : CATEGORY bit mask with (01,05) 2nd character

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
300	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 0
301	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 1
302	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 2
303	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 3
304	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 4
305	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 5
306	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 6
307	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 7
308	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 8
309	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 9
30A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 10
30B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 11
30C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 12
30D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 13
30E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 14
30F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 15
310	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 16
311	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 17
312	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 18
313	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 19
314	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 20
315	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 21
316	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 22
317	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 23
318	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 24
319	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 25
31A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 26
31B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 27
31C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 28
31D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 29
31E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 30
31F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 31
320	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 32
321	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 33
322	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 34
323	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 35
324	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 36
325	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 37
326	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 38
327	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 39
328	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 40
329	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 41
32A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 42
32B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 43
32C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 44
32D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 45
32E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 46
32F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 47
330	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 48
331	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 49
332	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 50
333	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 51
334	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 52
335	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 53
336	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 54
337	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 55
338	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 56
339	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 57
33A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 58
33B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 59
33C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 60
33D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 61
33E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 62
33F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 63

MODEL							MODEL						
A3HE1HFV5J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
340	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 64
341	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 65
342	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 66
343	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 67
344	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 68
345	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 69
346	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 70
347	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 71
348	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 72
349	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 73
34A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 74
34B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 75
34C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 76
34D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 77
34E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 78
34F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 79
350	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 80
351	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 81
352	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 82
353	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 83
354	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 84
355	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 85
356	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 86
357	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 87
358	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 88
359	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 89
35A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 90
35B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 91
35C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 92
35D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 93
35E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 94
35F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 95
360	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 96
361	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 97
362	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 98
363	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 99
364																	
365																	
366																	
367																	
368																	
369																	
36A																	
36B																	
36C																	
36D																	
36E																	
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373																	
374																	
375																	
376																	
377																	
378																	
379																	
37A																	
37B																	
37C																	
37D																	
37E																	
37F																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

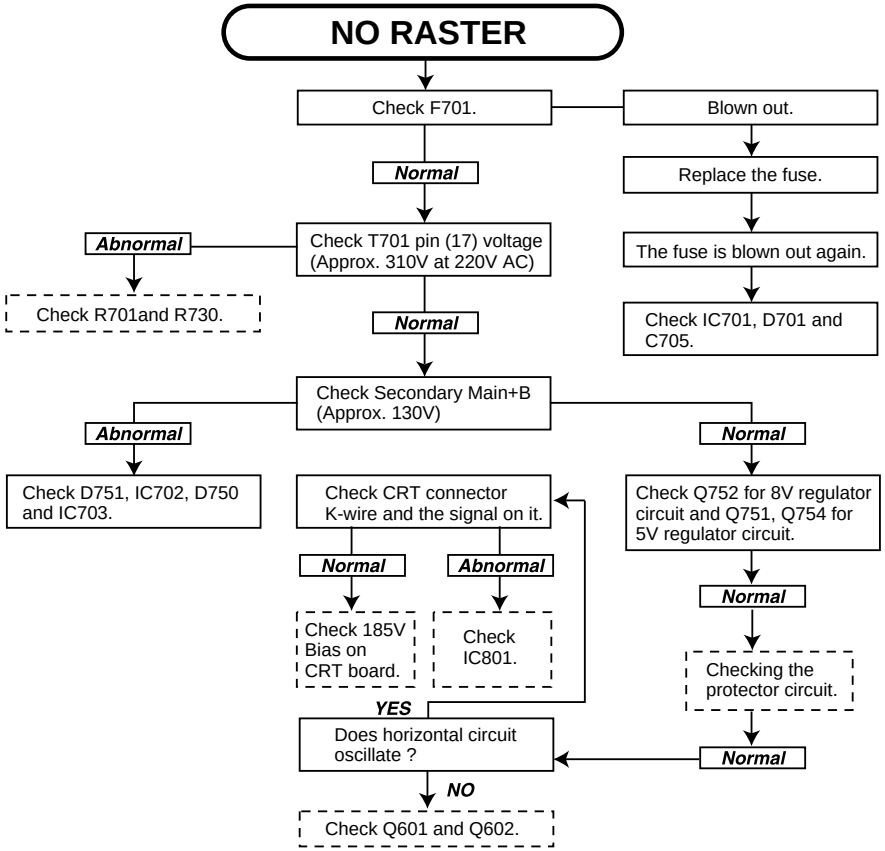
ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
380																	
381																	
382																	
383																	
384																	
385																	
386																	
387																	
388																	
389																	
38A																	
38B																	
38C																	
38D																	
38E																	
38F																	
390																	
391																	
392																	
393																	
394																	
395																	
396																	
397																	
398																	
399																	
39A																	
39B																	
39C																	
39D																	
39E																	
39F																	
3A0																	
3A1																	
3A2																	
3A3																	
3A4																	
3A5																	
3A6																	
3A7																	
3A8																	
3A9																	
3AA																	
3AB																	
3AC																	
3AD																	
3AE																	
3AF																	
3B0																	
3B1																	
3B2																	
3B3																	
3B4																	
3B5																	
3B6																	
3B7																	
3B8																	
3B9																	
3BA																	
3BB																	
3BC																	
3BD																	
3BE																	
3BF																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

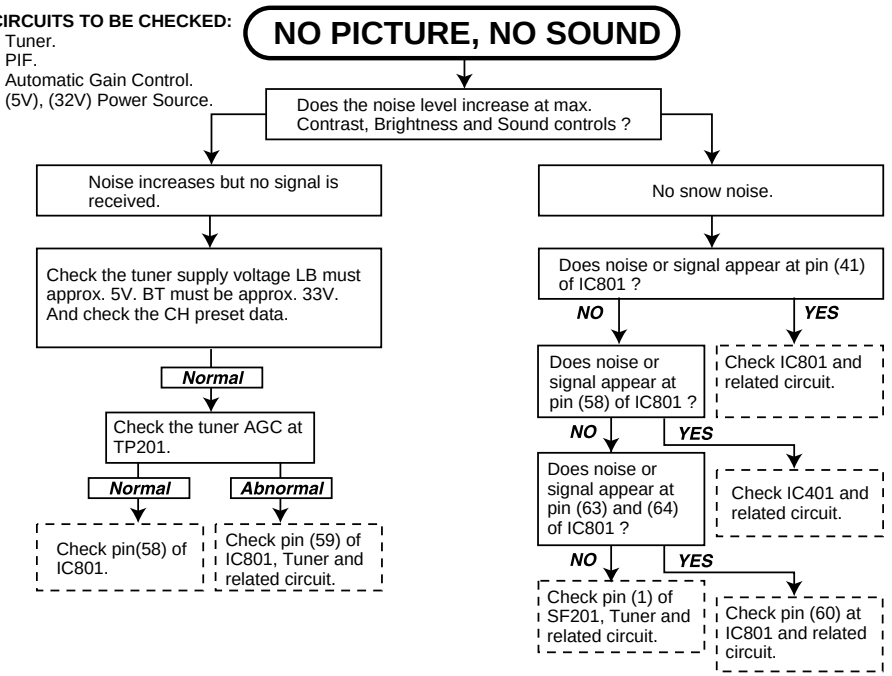
ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
3C0																	
3C1																	
3C2																	
3C3																	
3C4																	
3C5																	
3C6																	
3C7																	
3C8																	
3C9																	
3CA																	
3CB																	
3CC																	
3CD																	
3CE																	
3CF																	
3D0																	
3D1																	
3D2																	
3D3																	
3D4																	
3D5																	
3D6																	
3D7																	
3D8																	
3D9																	
3DA																	
3DB																	
3DC																	
3DD																	
3DE																	
3DF																	
3E0																	
3E1																	
3E2																	
3E3																	
3E4																	
3E5																	
3E6																	
3E7																	
3E8																	
3E9																	
3EA																	
3EB																	
3EC																	
3ED																	
3EE																	
3EF																	
3F0																	
3F1																	
3F2																	
3F3																	
3F4																	
3F5																	
3F6																	
3F7																	
3F8																	
3F9																	
3FA																	
3FB																	
3FC																	
3FD																	
3FE																	
3FF																	
MODEL									MODEL								
A3HE1HFV5J																	
LETTER NO.									LETTER NO.								

TROUBLE SHOOTING FLOWCHART

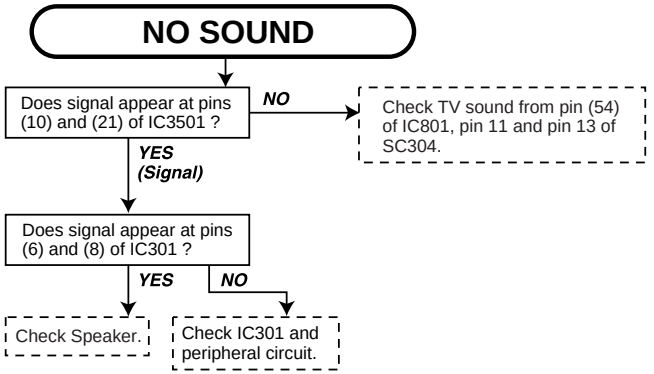


TROUBLE SHOOTING FLOWCHART (Continued)

CIRCUITS TO BE CHECKED:
- Tuner.
- PIF.
- Automatic Gain Control.
- (5V), (32V) Power Source.


NO PICTURE, NO SOUND
Does the noise level increase at max. Contrast, Brightness and Sound controls ?
Noise increases but no signal is received.
No snow noise.
Check the tuner supply voltage LB must approx. 5V. BT must be approx. 33V. And check the CH preset data.
Does noise or signal appear at pin (41) of IC801 ?
NO
YES
Does noise or signal appear at pin (58) of IC801 ?
Check IC801 and related circuit.
Normal
Check the tuner AGC at TP201.
NO
YES
Does noise or signal appear at pin (63) and (64) of IC801 ?
Check IC401 and related circuit.
Normal
Abnormal
Check pin(58) of IC801.
Check pin (59) of IC801, Tuner and related circuit.
NO
YES
Check pin (1) of SF201, Tuner and related circuit.
Check pin (60) at IC801 and related circuit.

CIRCUITS TO BE CHECKED:
- Sound Detector Circuit.
- Sound Switch and Att. Control.
- Audio Output Circuit.


NO SOUND
Does signal appear at pins (10) and (21) of IC3501 ?
NO
Check TV sound from pin (54) of IC801, pin 11 and pin 13 of SC304.
YES (Signal)
Does signal appear at pins (6) and (8) of IC301 ?
YES
NO
Check Speaker.
Check IC301 and peripheral circuit.

TROUBLE SHOOTING FLOWCHART (Continued)

NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

CIRCUIT TO BE CHECKED:
- Sync. Separator Circuit.

Check pins(5), (6), (10) and (11) of IC801.

DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Re-adjust vertical size. (Bus Data)

Vertical linearity and size are abnormal.

Check R503, R506, R513, R520 and C515.

NO VERTICAL SCAN

Check IC501 bias.

- ***Normal*** → Check C511.
- ***Abnormal*** → Check IC501.

TROUBLE SHOOTING FLOWCART (Continued)

NO SPECIFIC COLOUR

Is some colour produced in B/W broadcast reception ?

- ***YES*** → Check IC801.
- ***NO*** → Is the white balance properly adjusted ?
  - ***NO*** → Re-adjust the white balance.
  - ***YES*** →
    - The picture colour is cyan. → Check Q855 and its adjacent circuits.
    - The picture colour is magenta. → Check Q854 and its adjacent circuits.
    - The picture colour is yellow. → Check Q853 and its adjacent circuits.

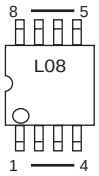
NO SPECIFICATION COLOUR
"PAL / SECAM / NTSC"
(NO COLOUR SYNCHRONIZATION)

Check IC801 and bias control circuit.

- (PAL / SECAM) ***Normal*** → Check X801.(4.43MHz)
- (NTSC) ***Normal*** → Check Q202 and peripheral circuit.

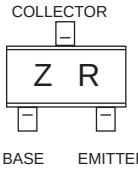
SOLID STATE DEVICE BASE DIAGRAM

TOP VIEW

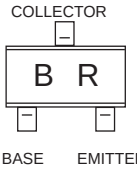


BR24L08F

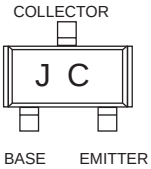
FXA003WJ



D601A



B709A



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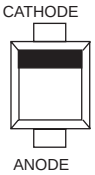
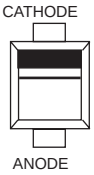
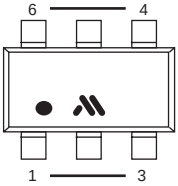


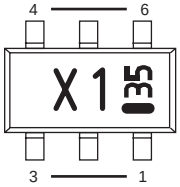
EX1393CE
EX1399CE



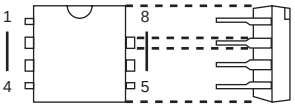
1SS356



M1501XN



MX1C/C



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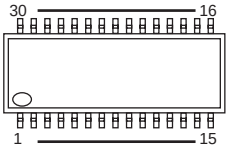
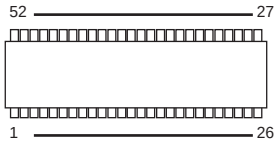
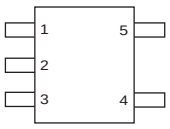


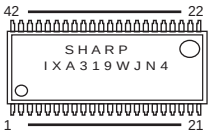
NJW1142



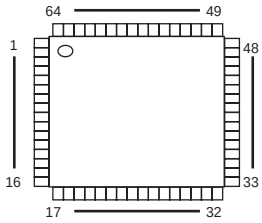
SAA5264



NJM2870F



IXA319WJ



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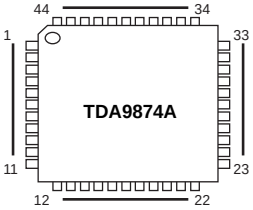

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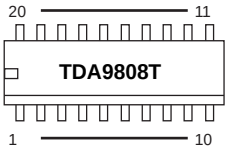
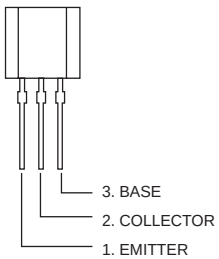
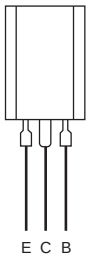


TDA9808T

SIDE VIEW



2PC1815Y
2PC1815G
2PA1015Y



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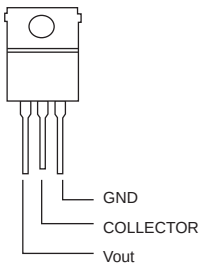

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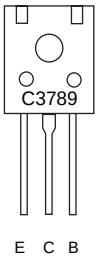

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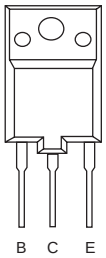

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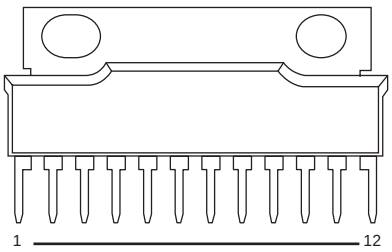
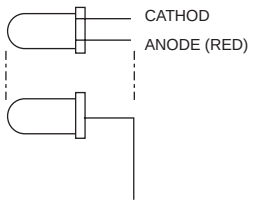
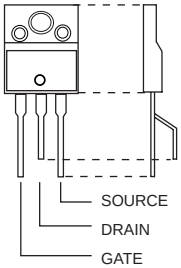


AN17821A



PX0013



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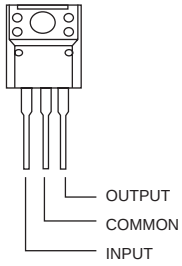
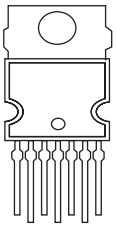


KA7809A
KA7805A



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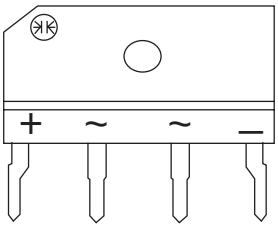
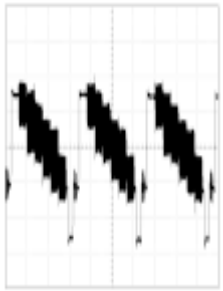
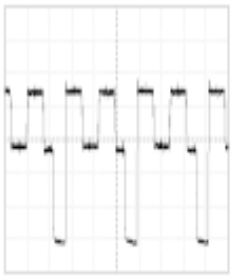
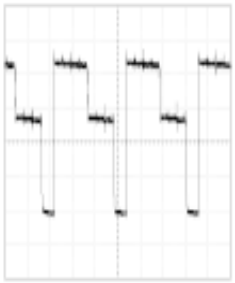
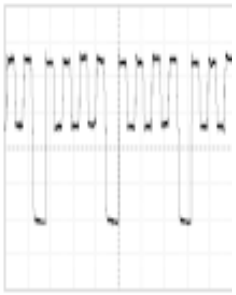
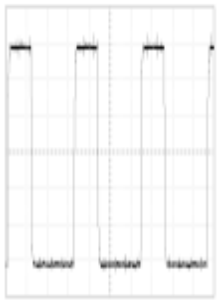
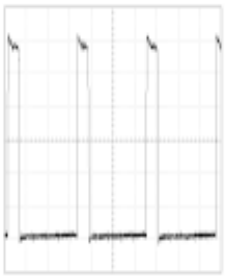
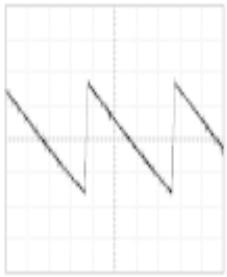
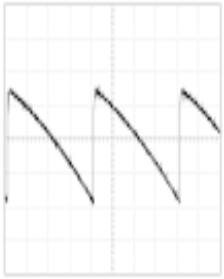
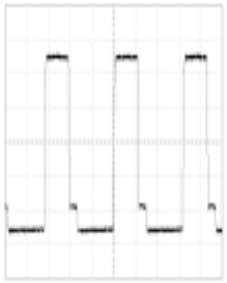
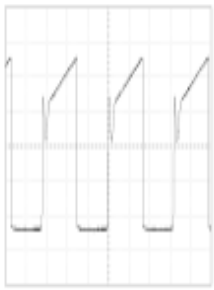
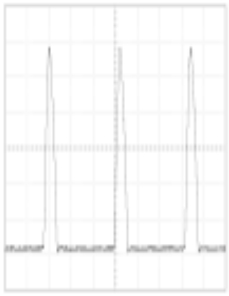
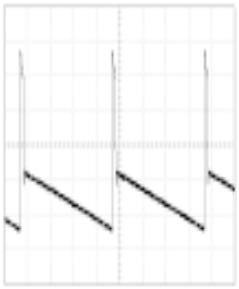
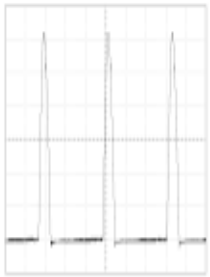
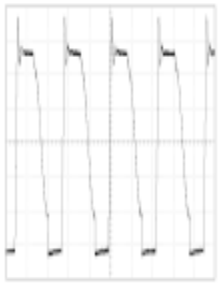


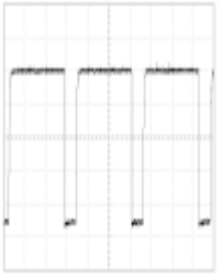
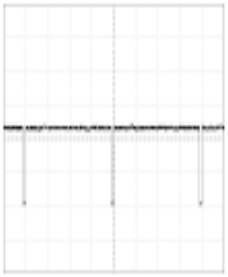
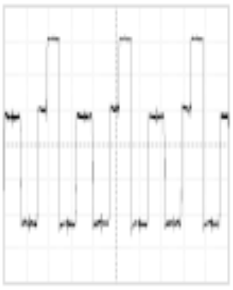
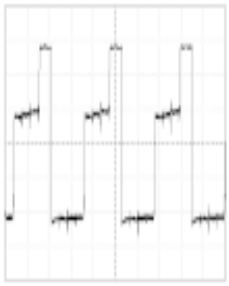
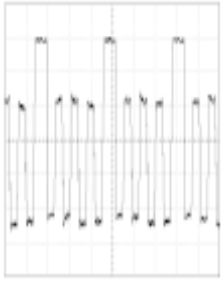
DX0476CE

WAVEFORMS

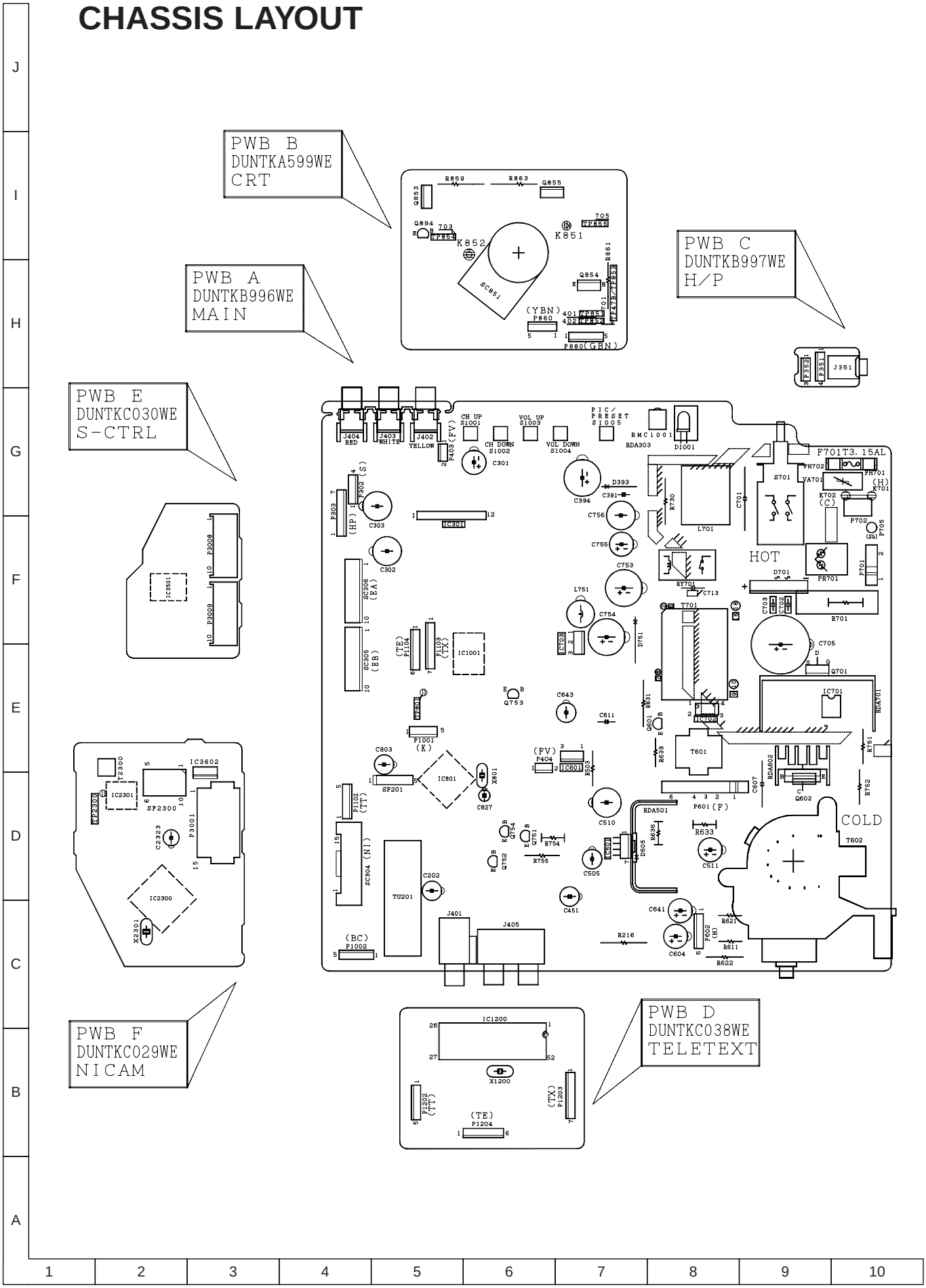
1) 0.884 Vp-p	2) 4.50 Vp-p	3) 4.30 Vp-p	4) 4.54 Vp-p	5) 6.0 Vp-p
				
Horiz. Rate	Horiz. Rate	Horiz. Rate	Horiz. Rate	Horiz. Rate

6) 5.87 Vp-p	7) 1.62 Vp-p	8) 1.670 Vp-p	9) 5.04 Vp-p	10) 98.4 Vp-p
				
Vert. Rate	Vert. Rate	Vert. Rate	Horiz. Rate	Horiz. Rate

11) 1128 Vp-p	12) 51.8 Vp-p	13) 2.10 Vp-p	14) 124.4 Vp-p	15) 688.0 Vp-p
				
Horiz. Rate	Vert. Rate	Vert. Rate	Horiz. Rate	–

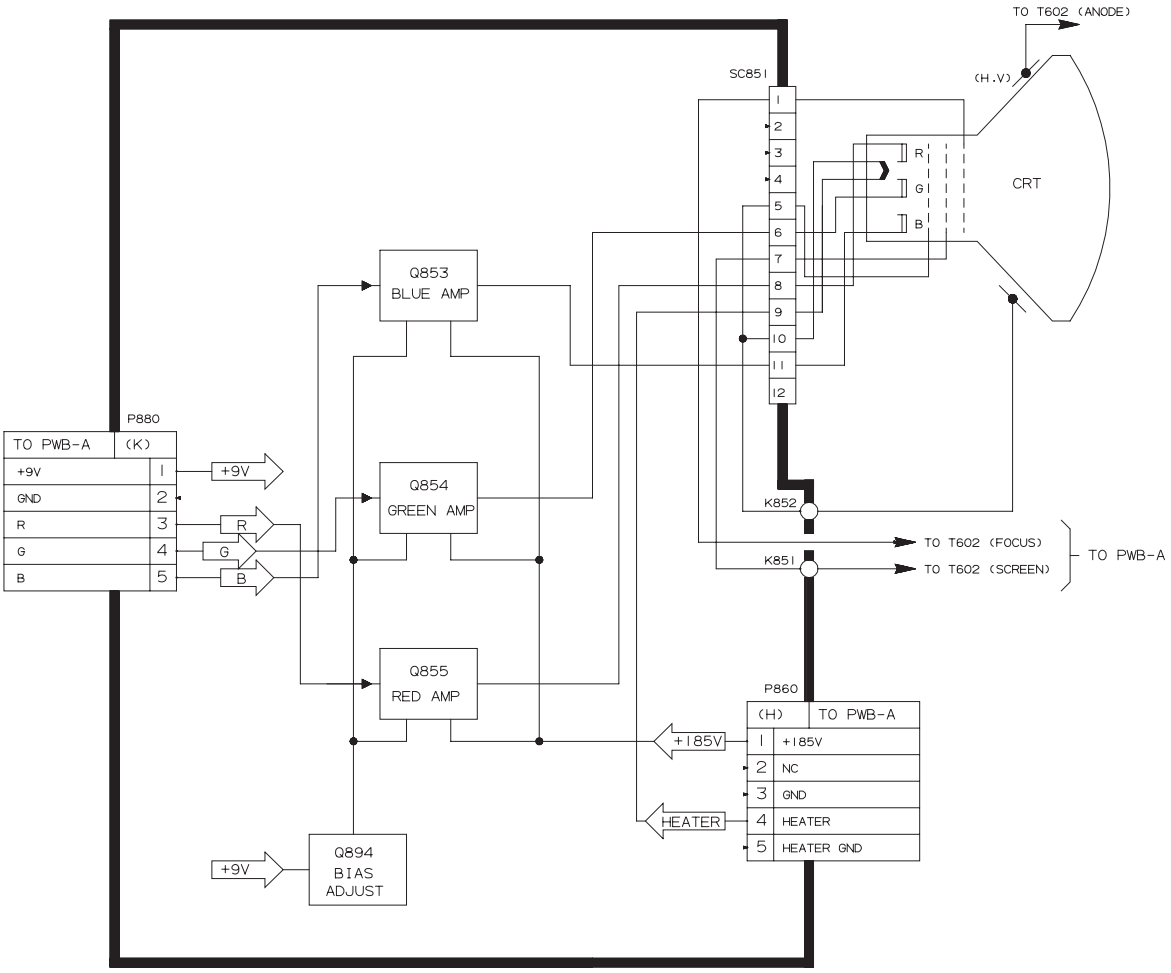
16) 4.58 Vp-p	17) 4.56 Vp-p	18) 110.8 Vp-p	19) 101.60 Vp-p	20) 110.0 Vp-p
				
Horiz. Rate	Vert. Rate	Horiz. Rate	Horiz. Rate	Horiz. Rate

CHASSIS LAYOUT

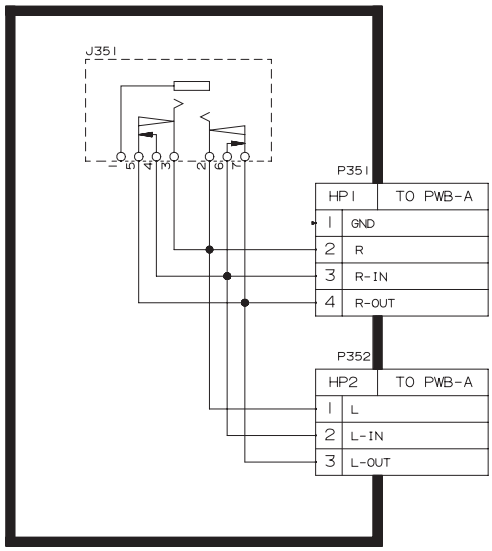


BLOCK DIAGRAM

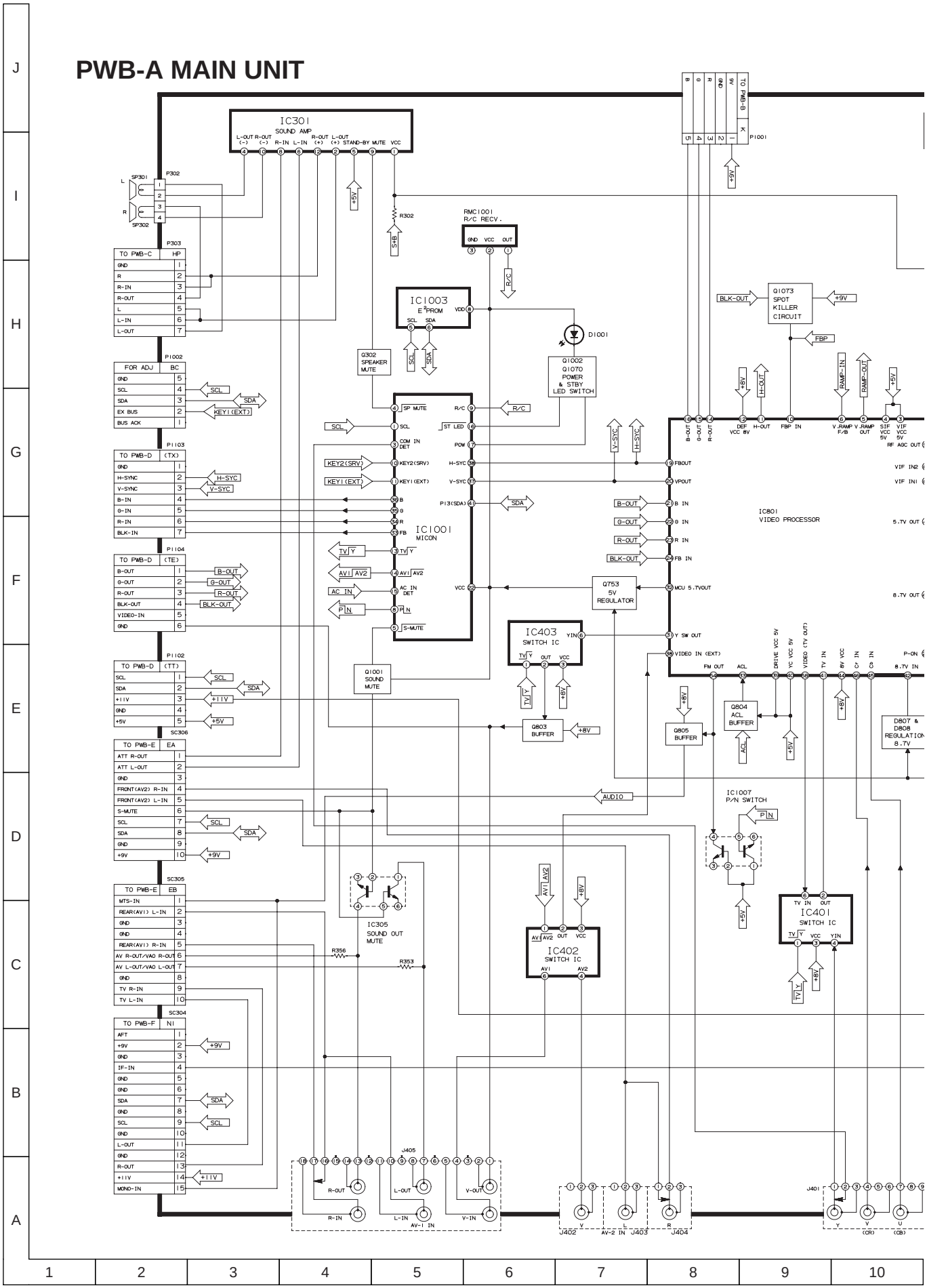
PWB-B CRT UNIT

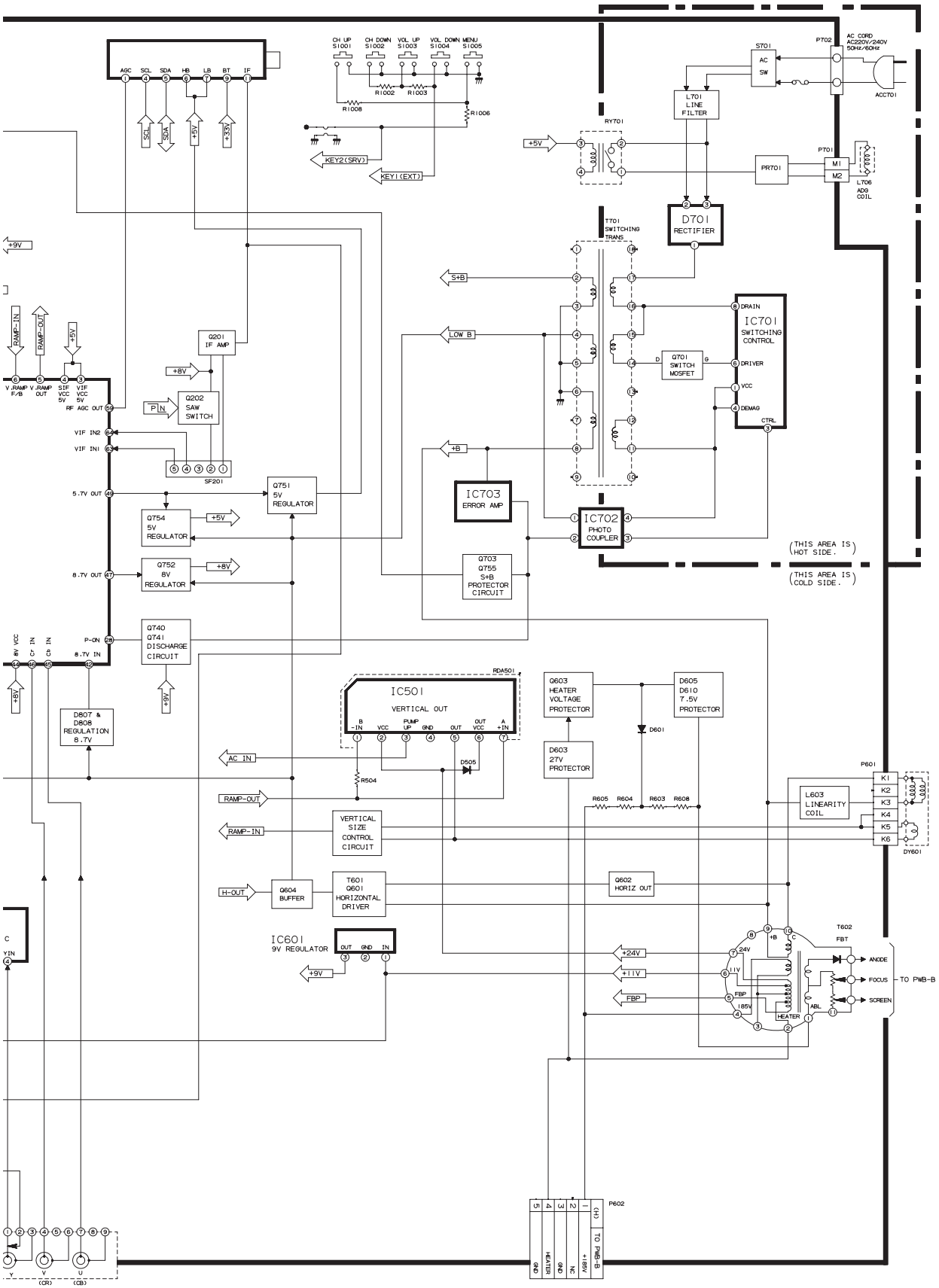


PWB-C HEADPHONE UNIT



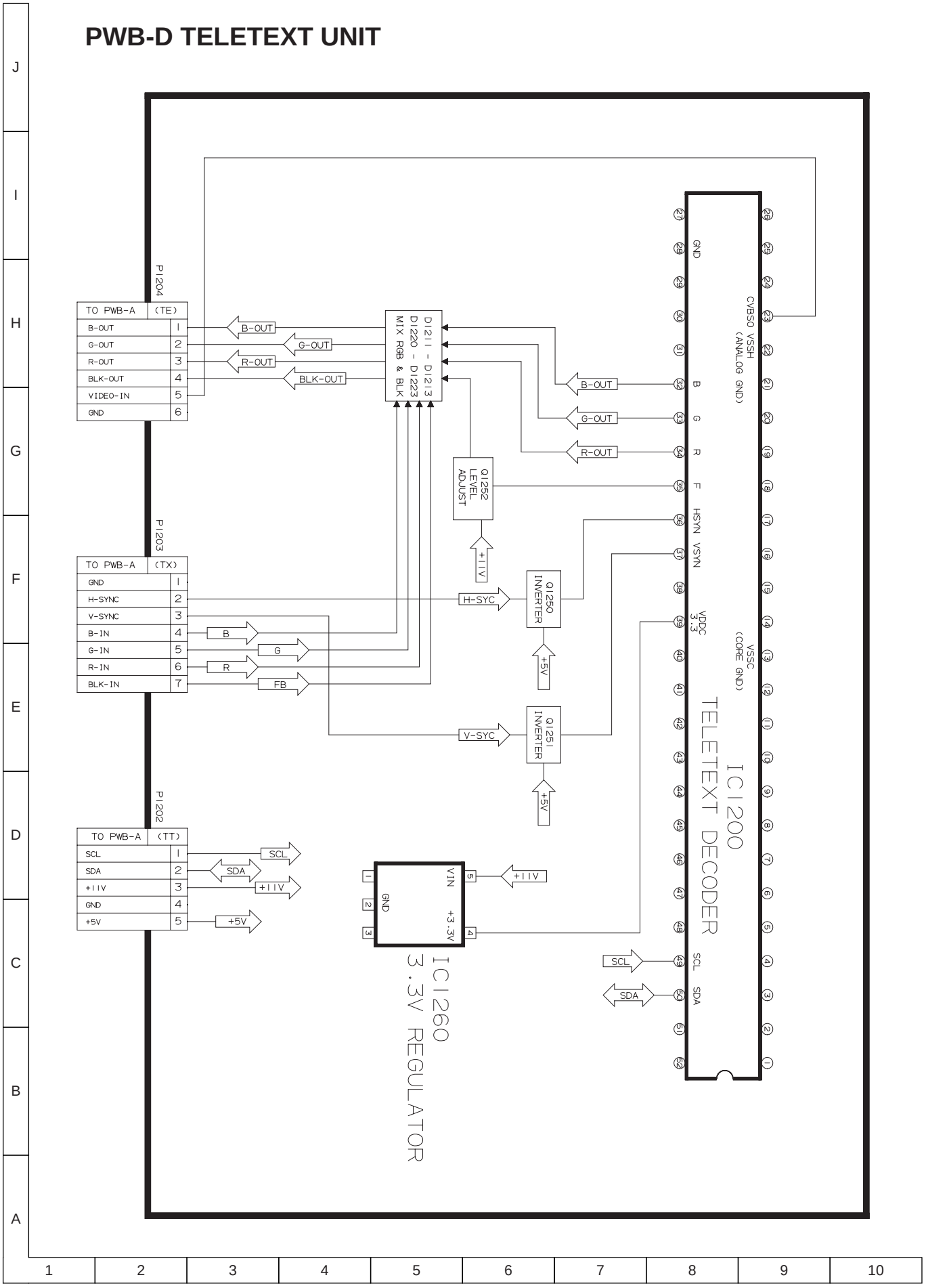
PWB-A MAIN UNIT



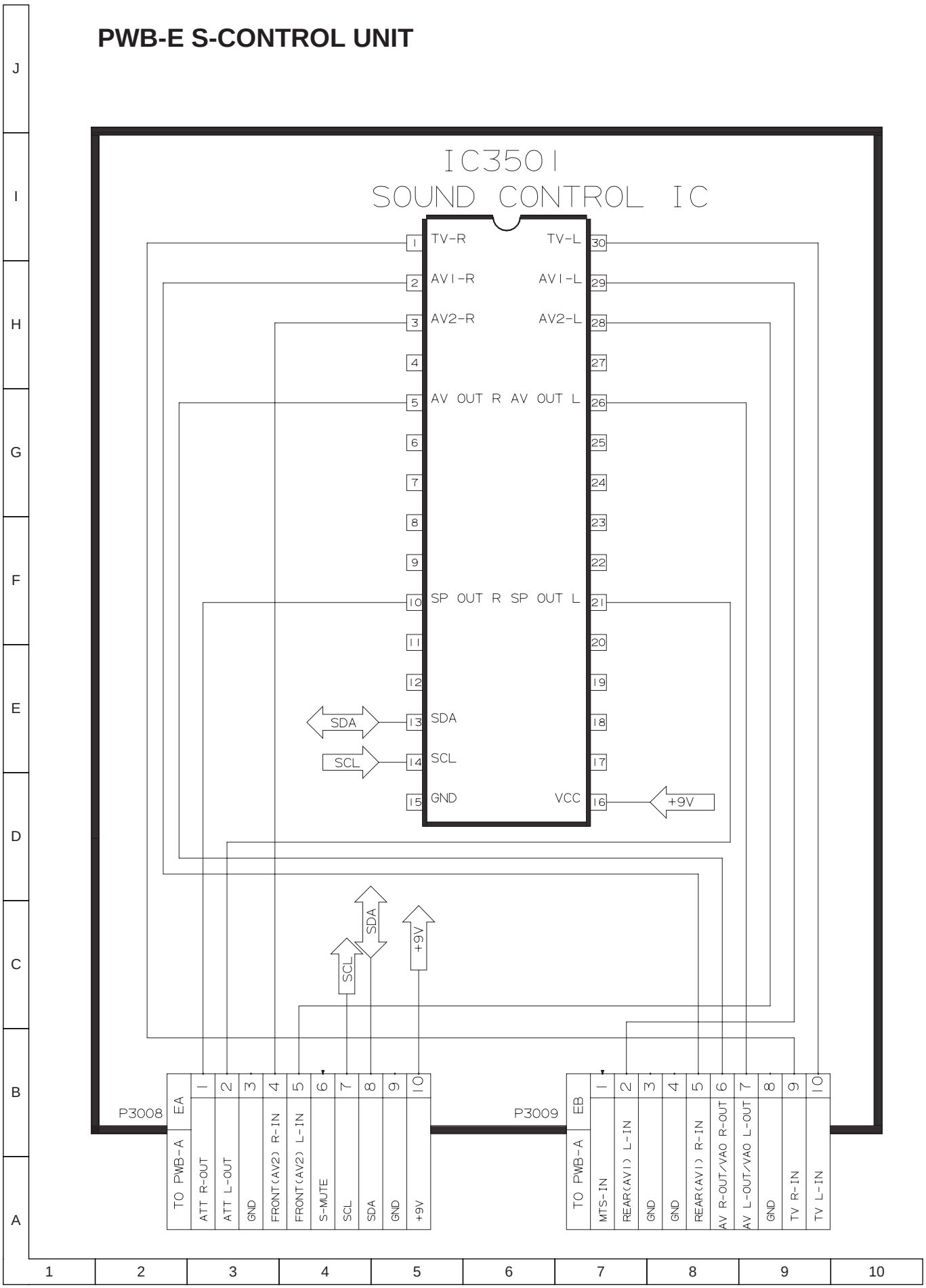


10	11	12	13	14	15	16	17	18	19

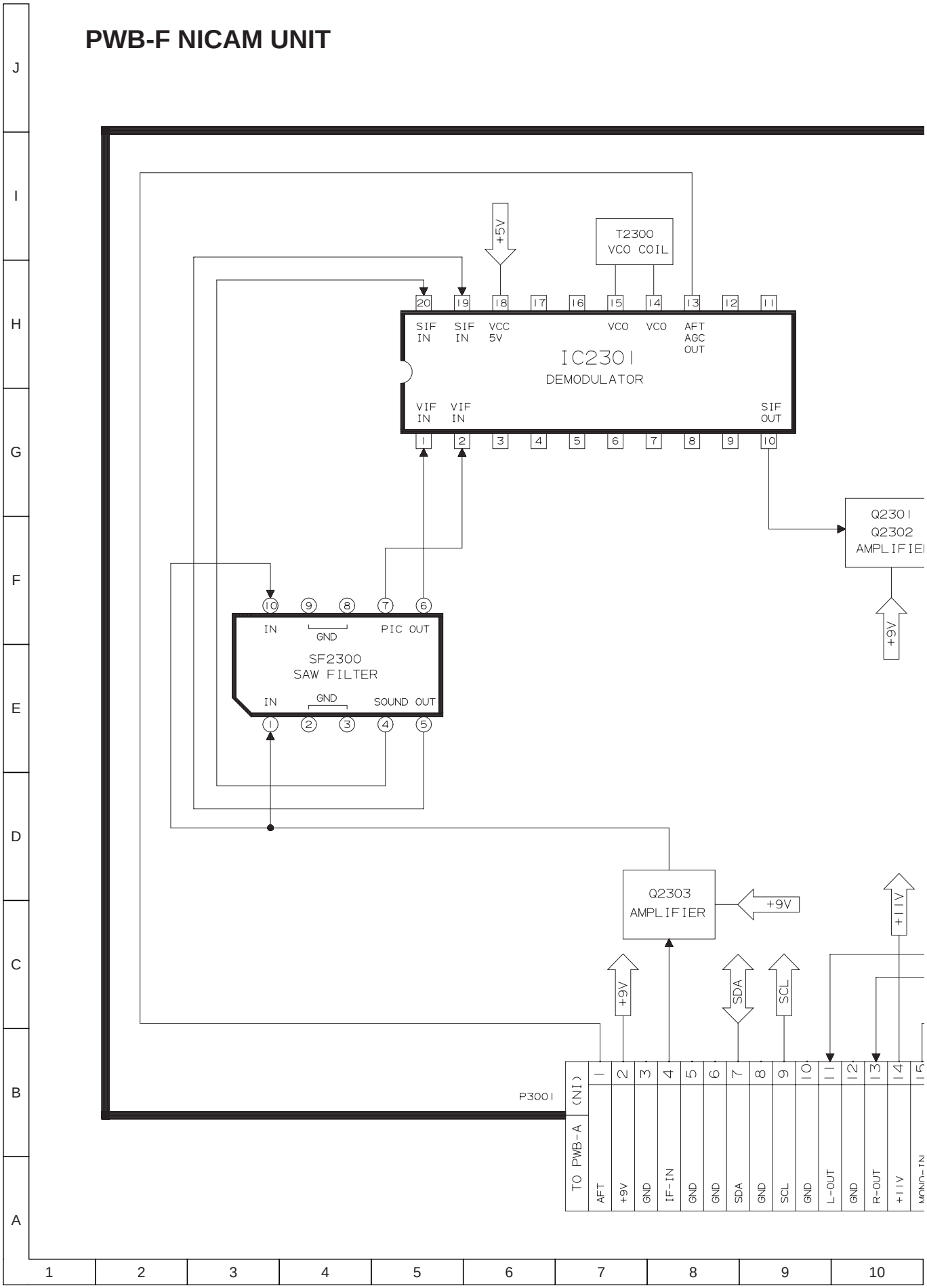
PWB-D TELETEXT UNIT

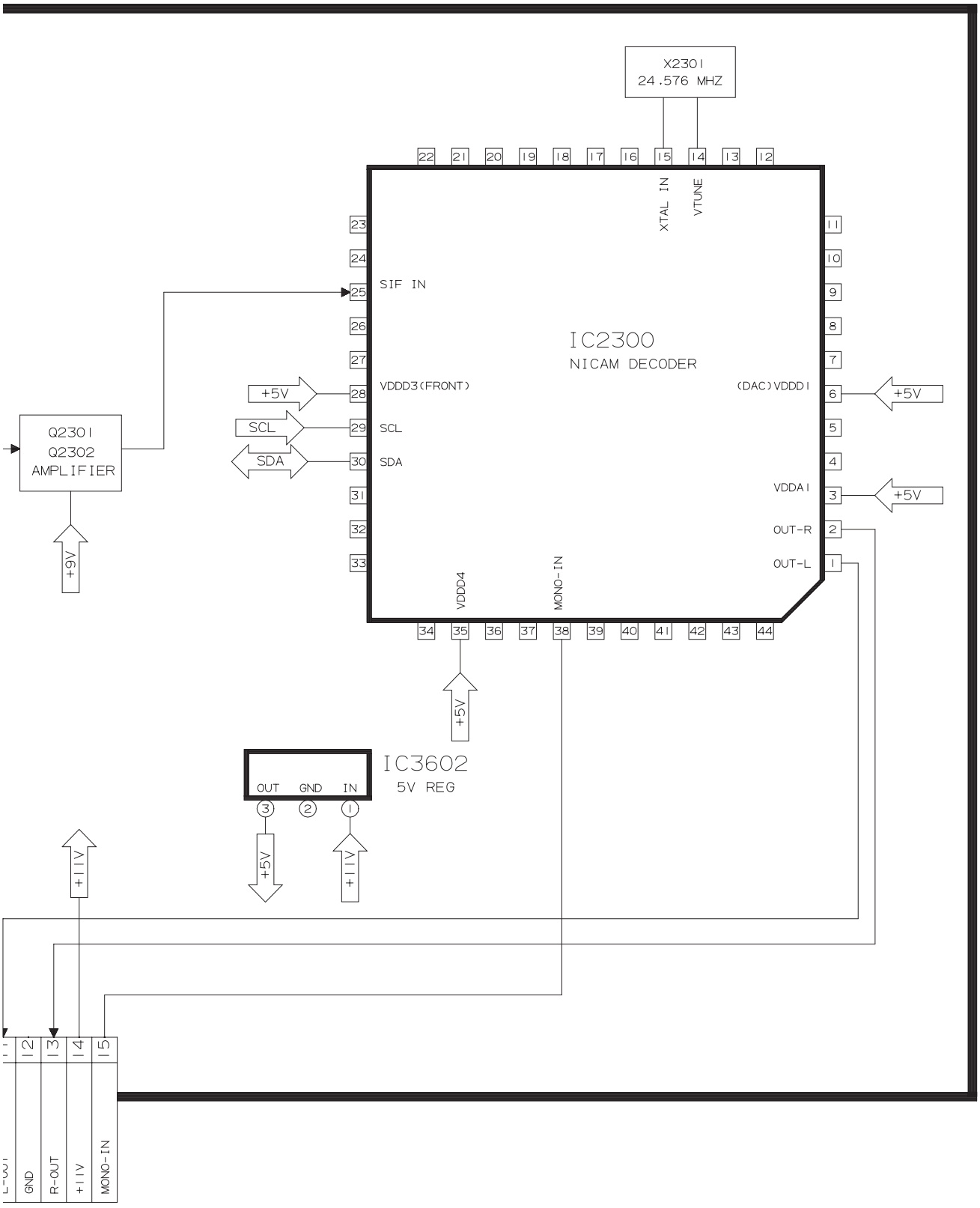


PWB-E S-CONTROL UNIT



PWB-F NICAM UNIT





10	11	12	13	14	15	16	17	18	19

DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH " ⚠ " ( ) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (——- - ——) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Mega ohm).*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P = μμF).*

VOLTAGE MEASUREMENT CONDITIONS:

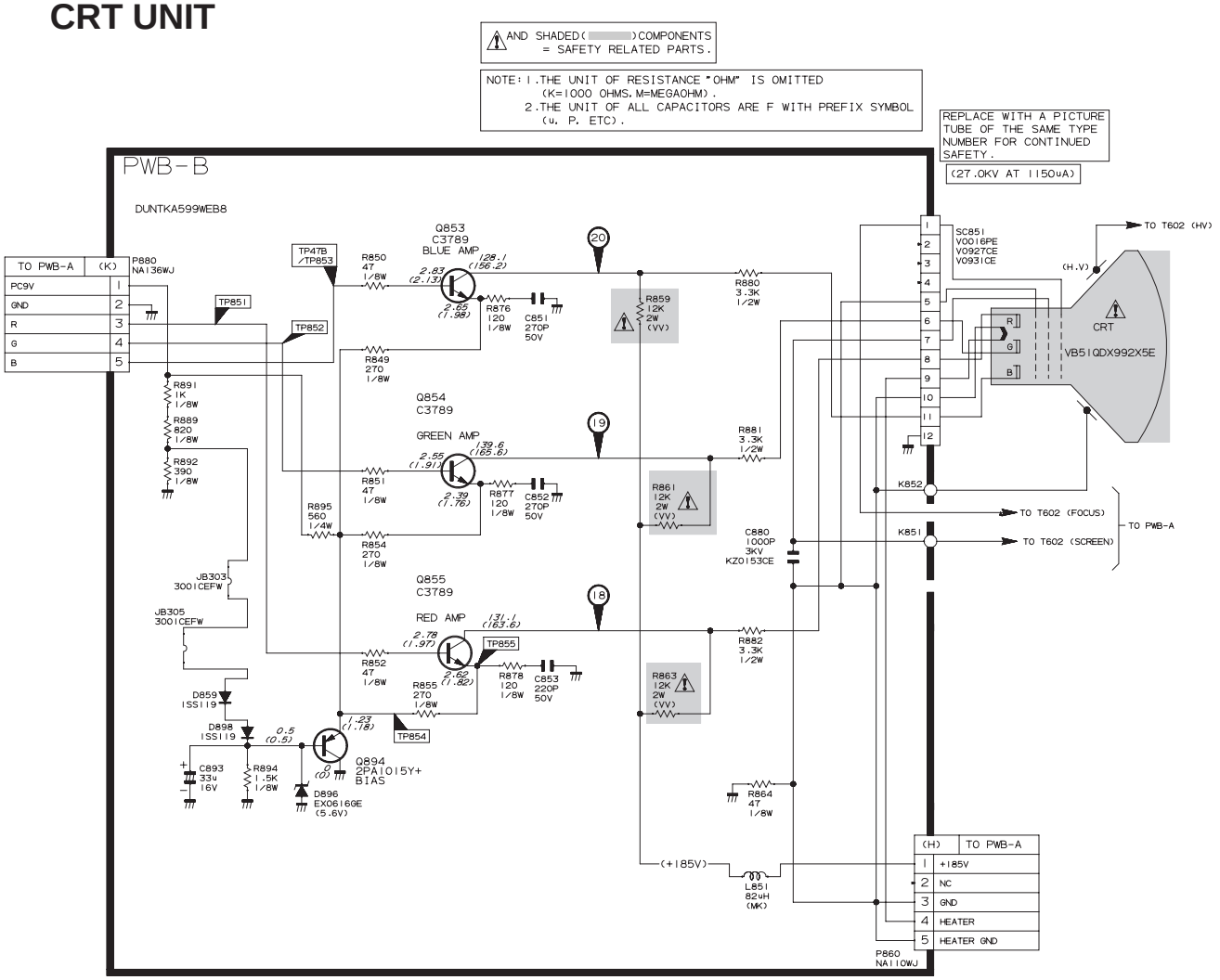
1. *Voltages in parenthesis measured with no signal.*
2. *Voltages without parenthesis measured with 3mV B & W or Colour signal.*
3. *All the voltages in each point are measured with VTVM.*

WAVEFORM MEASUREMENT CONDITIONS:

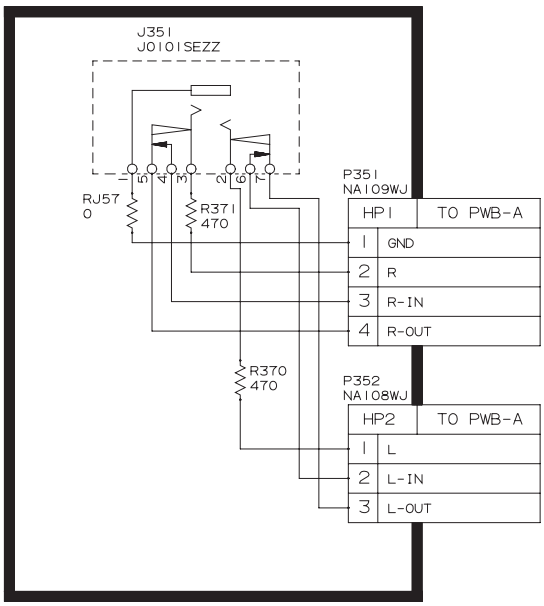
1. *The colour bar generator signal of 1.0V peak applied at pin (41) of IC801.*
2. *Approximately 4V AGC bias .*

SCHEMATIC DIAGRAM

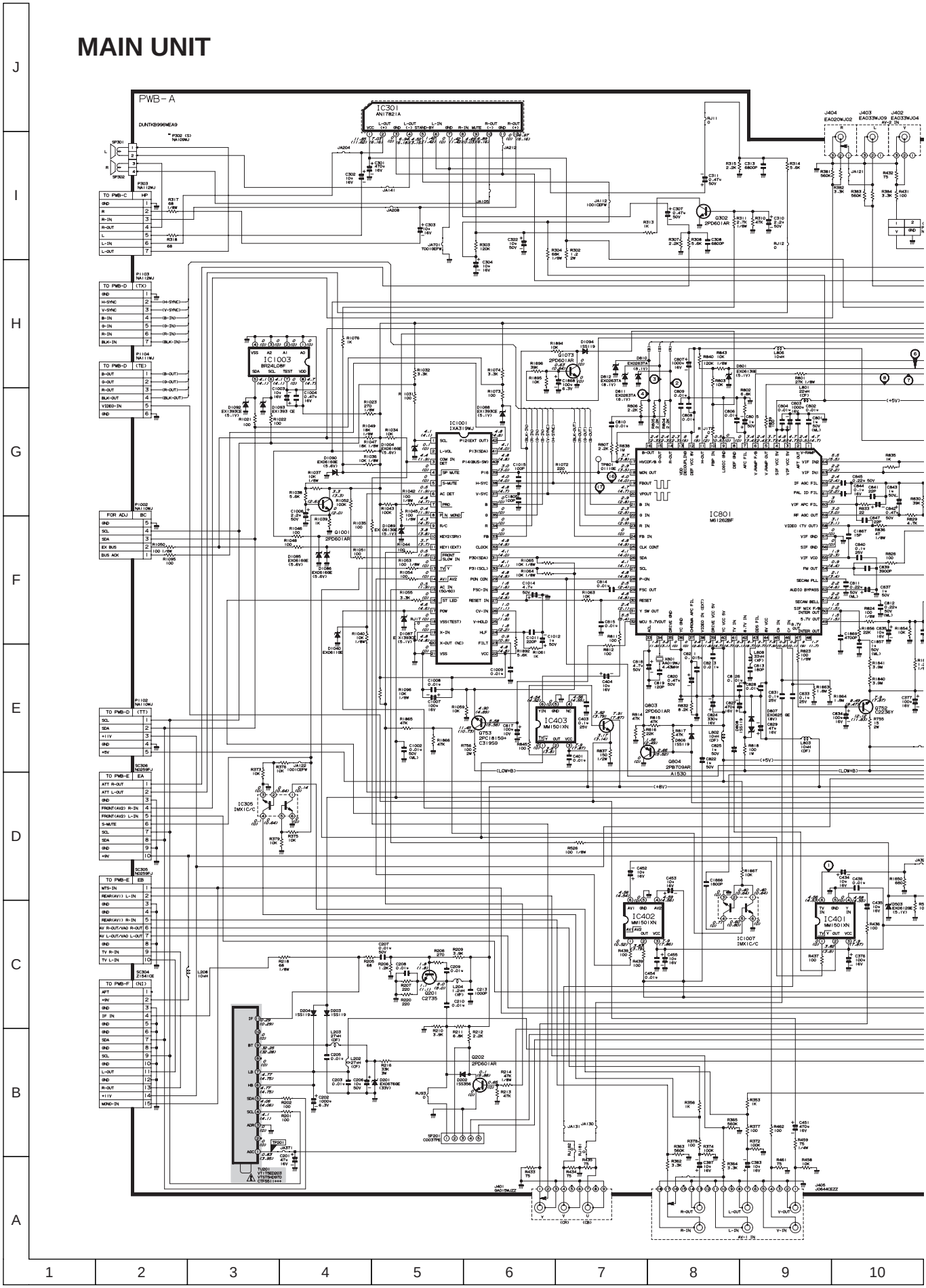
CRT UNIT

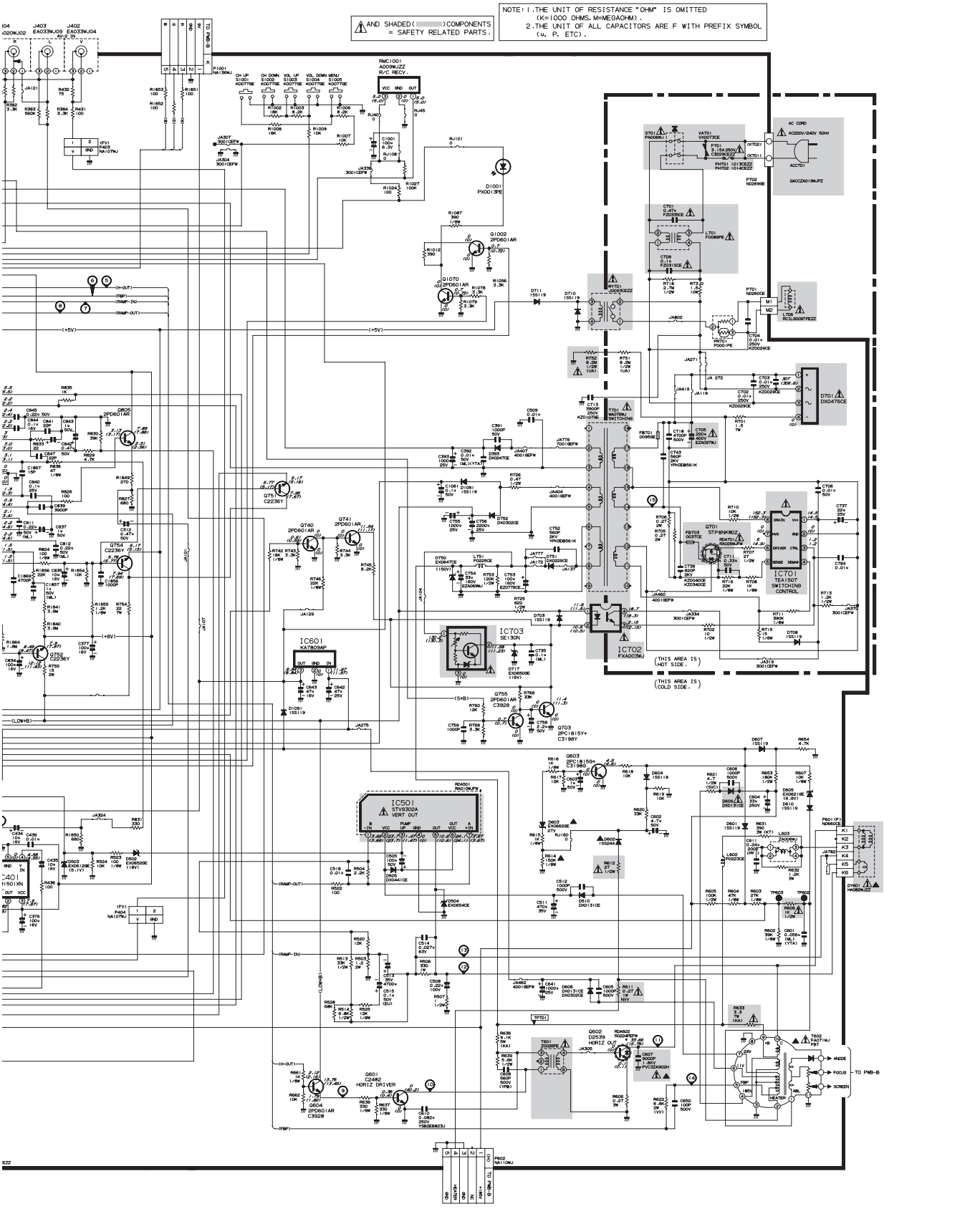


HEADPHONE UNIT



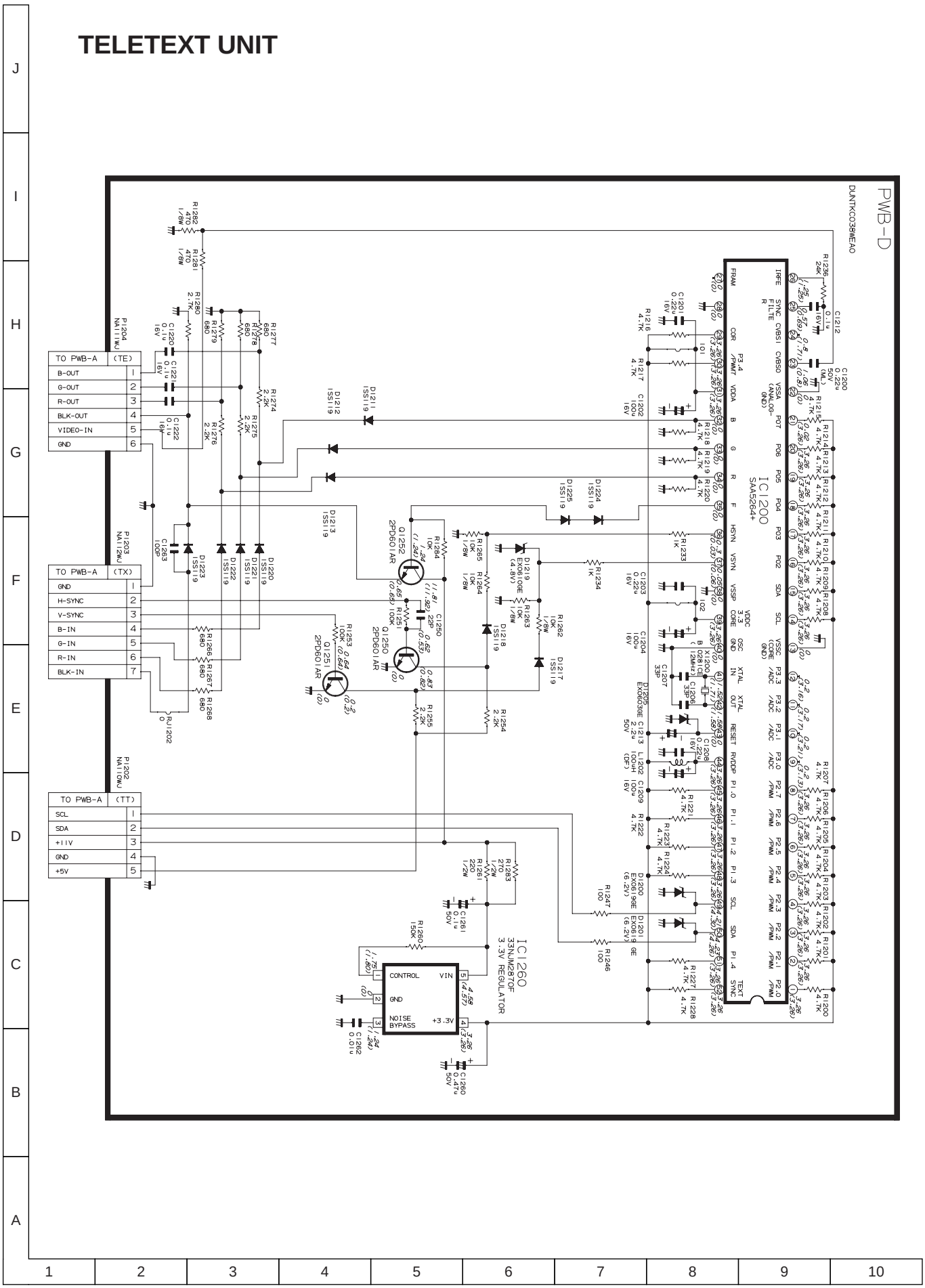
MAIN UNIT


PWB-A
IC301
IC1003
IC1001
IC801
IC403
IC402
IC401
IC1007
Q1001
Q201
Q202
Q302
Q303
Q753
Q804
TU201
TP201
TO PWB-C
TO PWB-D (TX)
TO PWB-D (TE)
TO PWB-D (TT)
TO PWB-E (EA)
TO PWB-E (EB)
TO PWB-F (N1)
FOR ADJ
J404
J403
J402
J401
J405
+5V
+8V
LOWHB

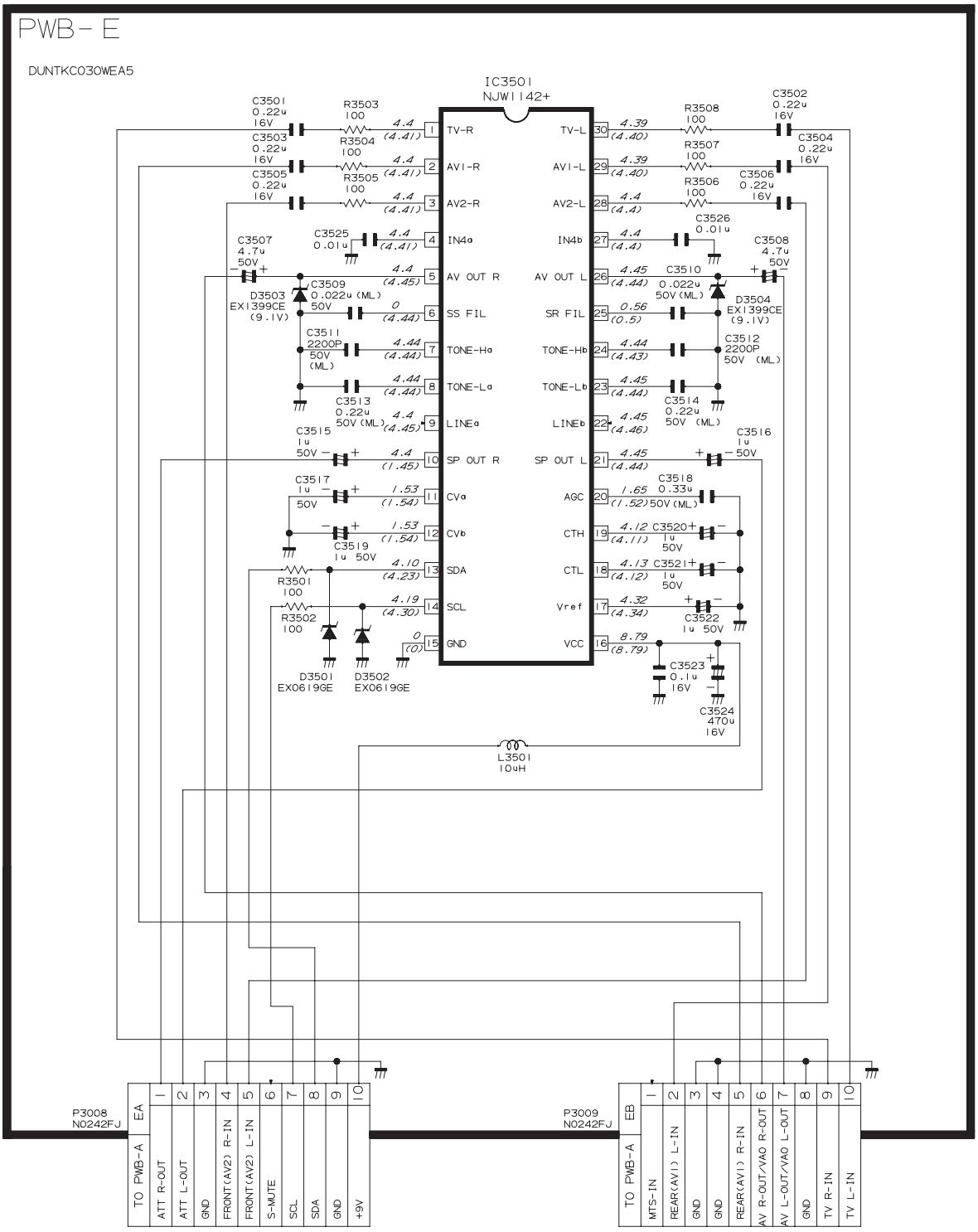


10	11	12	13	14	15	16	17	18	19

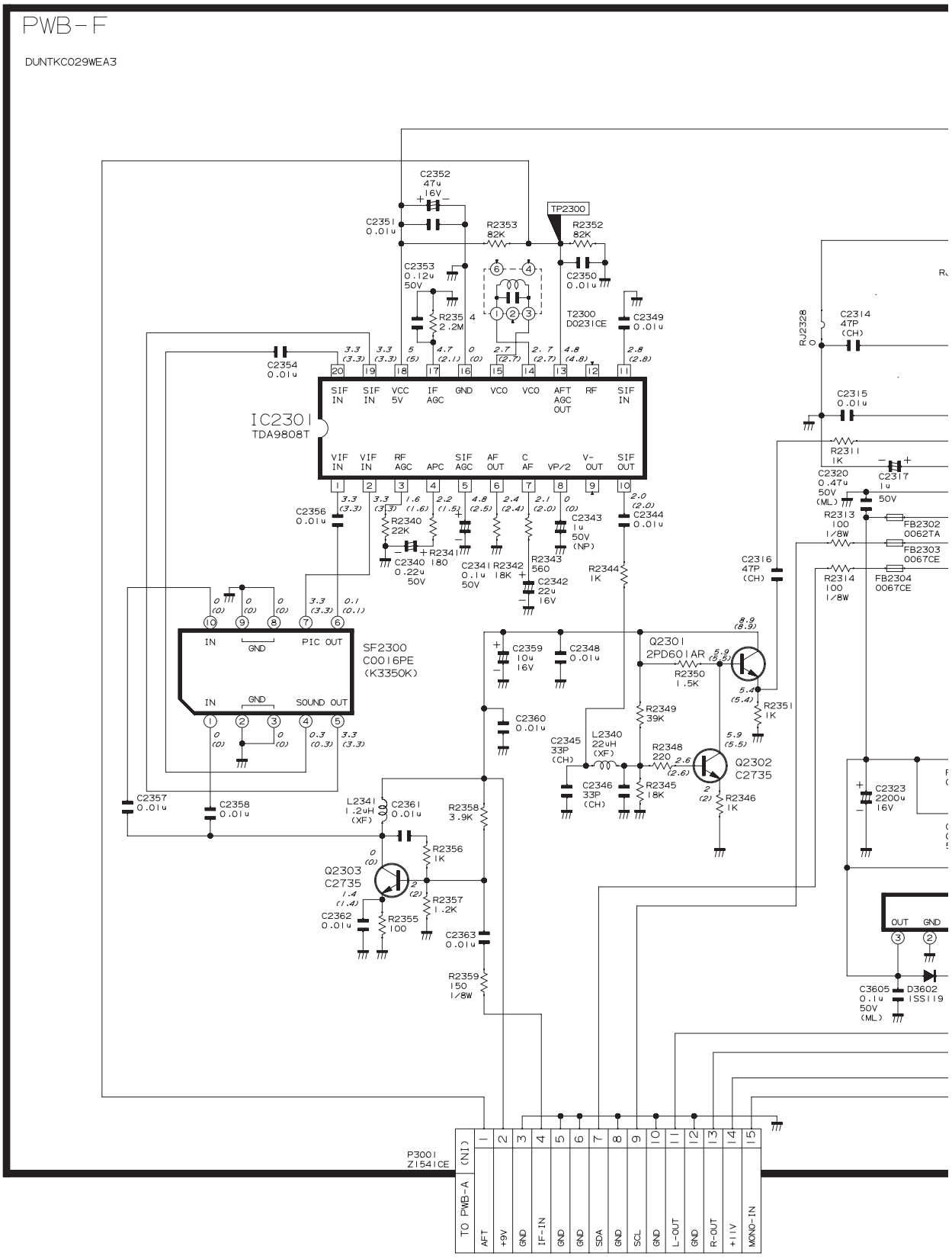
TELETEXT UNIT



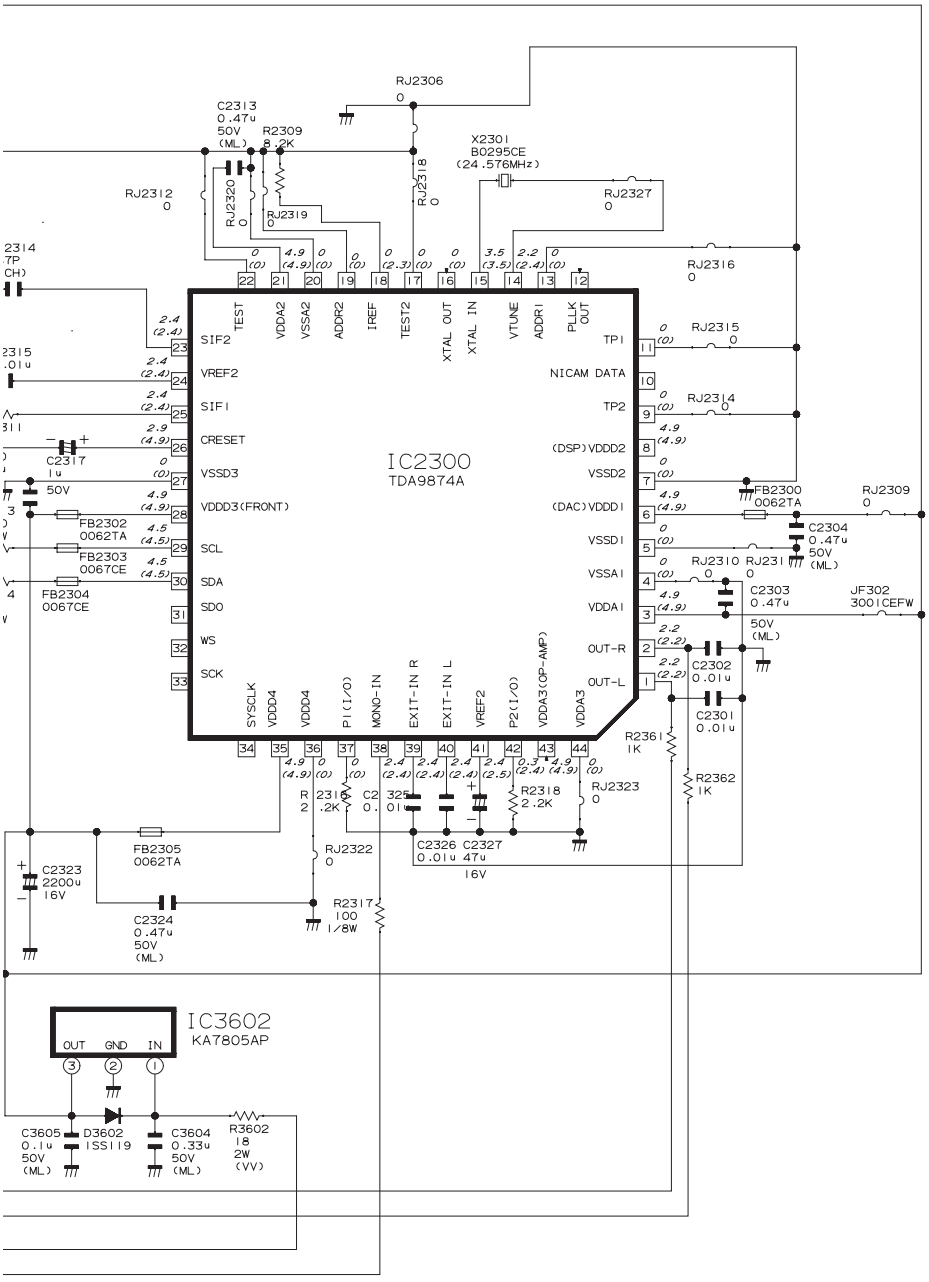
S-CONTROL UNIT



NICAM UNIT


PWB－F
DUNTKC029WEA3
IC2301
TDA9808T
SF2300
C0016PE
(K3350K)
Q2301
2PD601AR
Q2302
C2735
Q2303
C2735
T2300
D023ICE
TP2300
P3001
Z154ICE
TO PWB-A (NI)
AFT
+9V
GND
IF-IN
SDA
SCL
L-OUT
R-OUT
+11V
MONO-IN

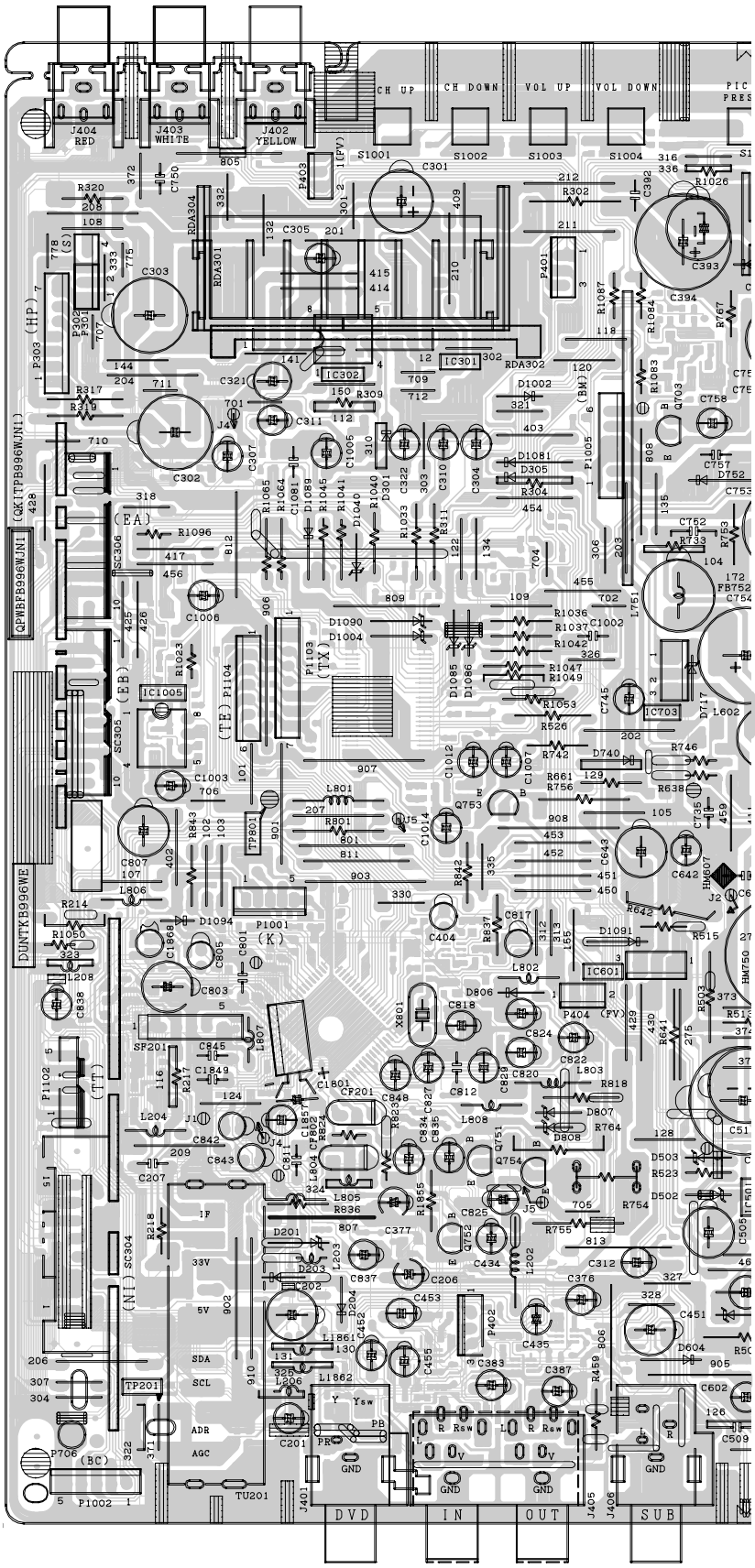
NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT.UNLESS OTHERWISE NOTED.
3.UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).

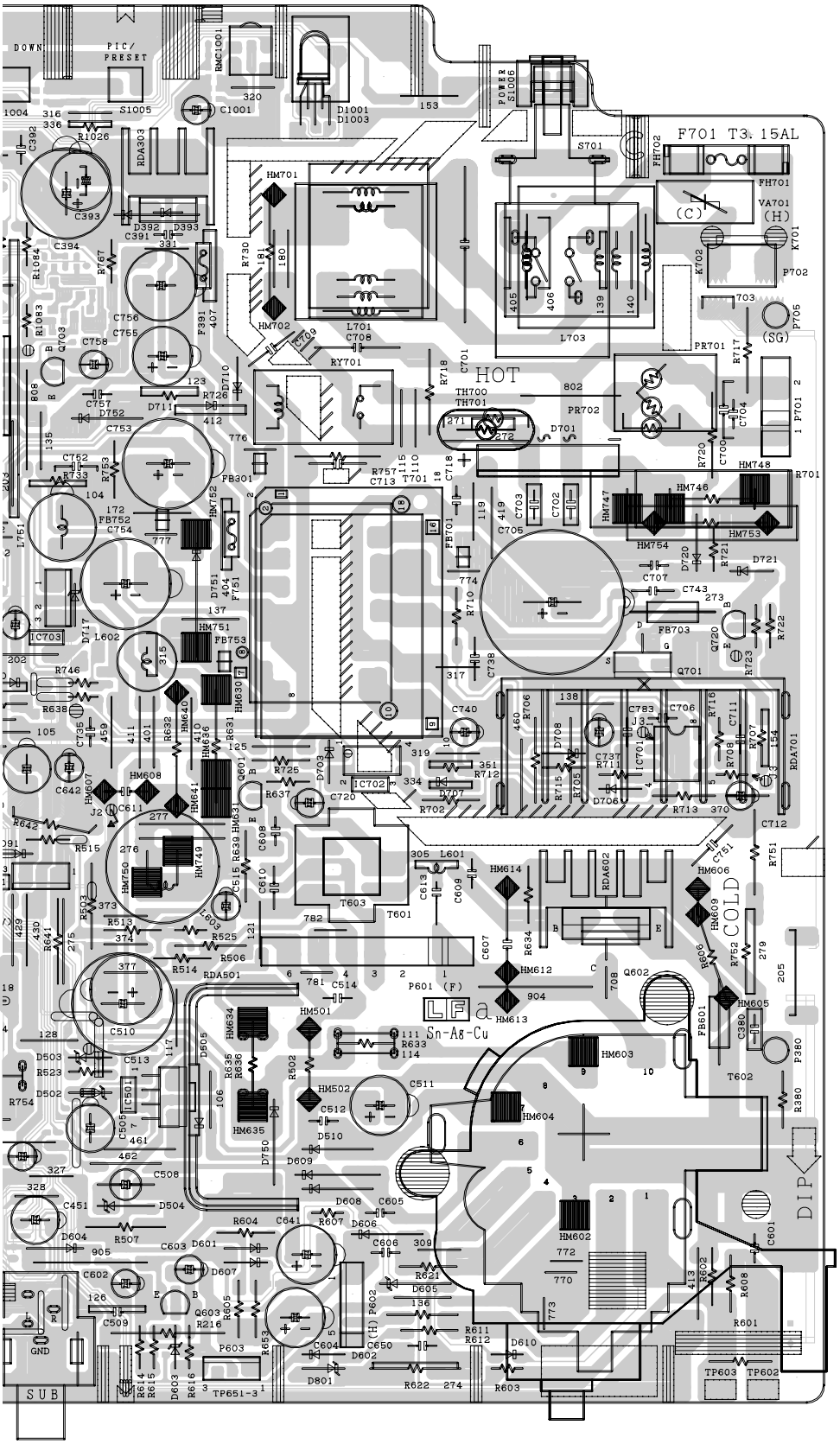


10	11	12	13	14	15	16	17	18	19

PRINTED WIRING BOARD ASSEMBLIES

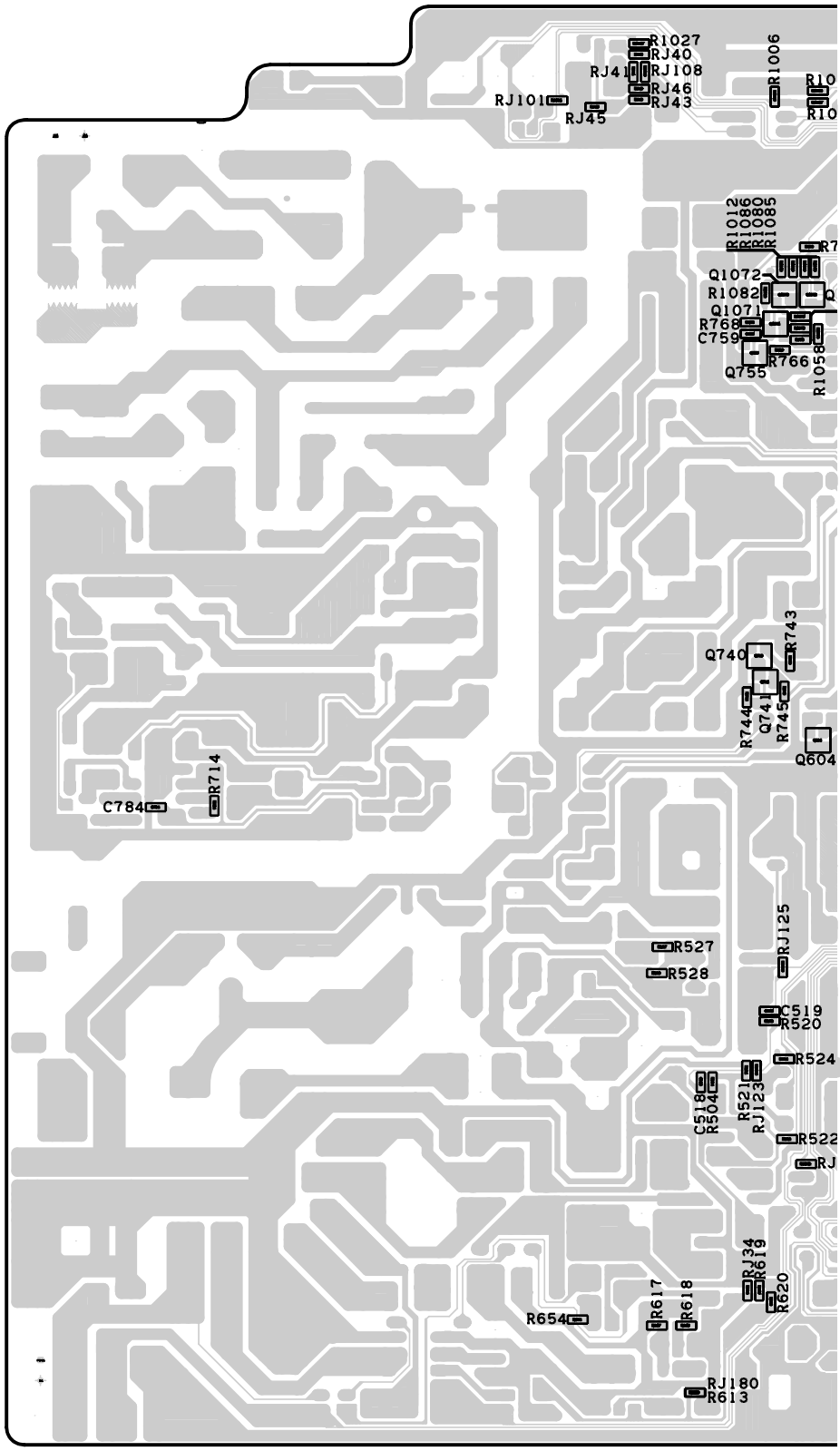
PWB-A: MAIN UNIT (Component Side)

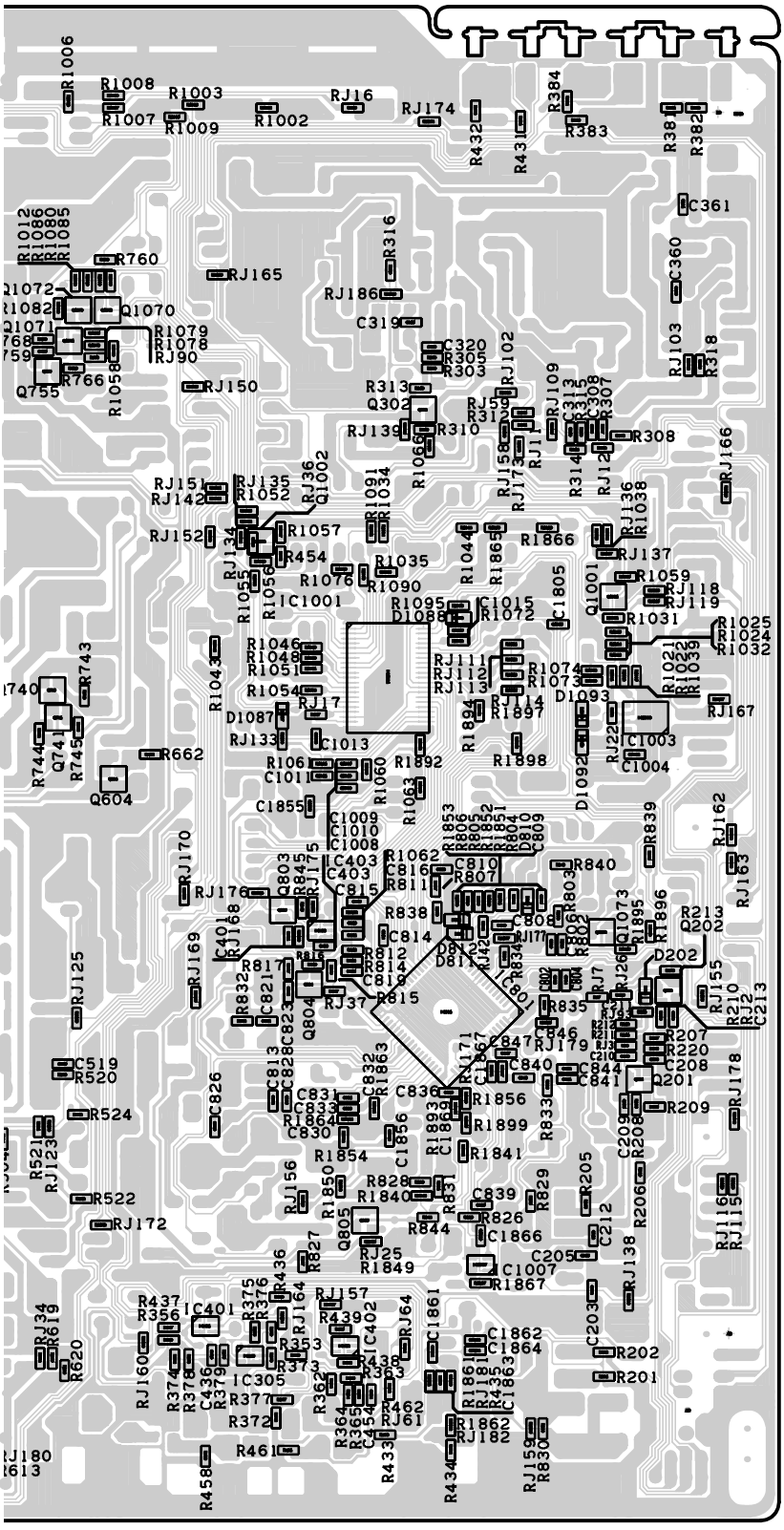




10	11	12	13	14	15	16	17	18	19

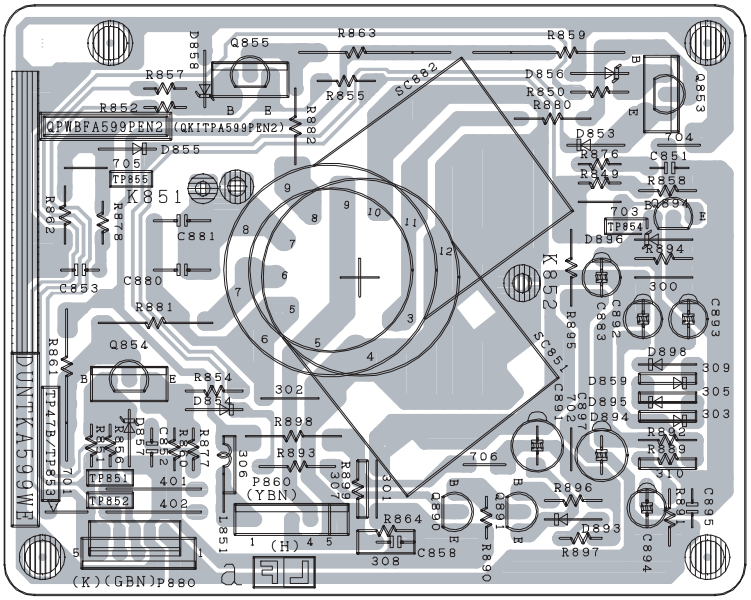
PWB-A: MAIN UNIT (Chip Parts Side)



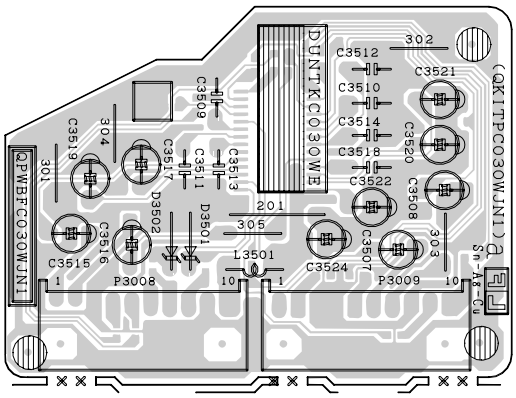


10	11	12	13	14	15	16	17	18	19

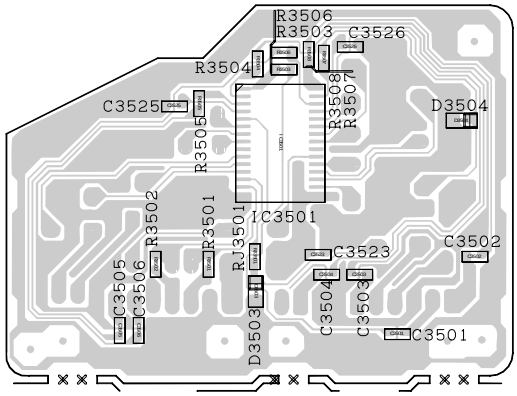
PWB-B: CRT UNIT (Component Side)



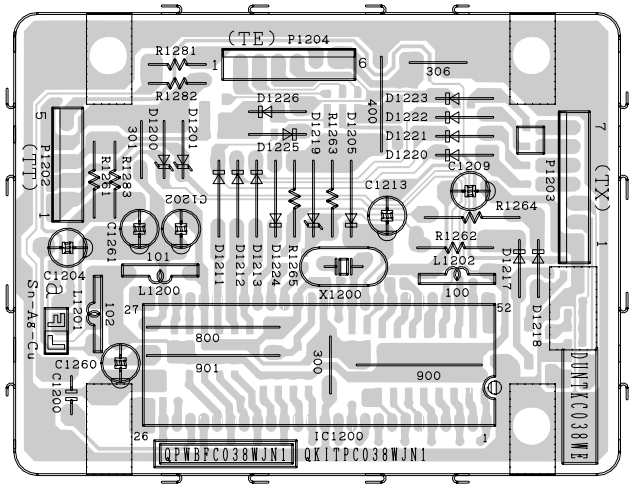
PWB-E: S-CONTROL UNIT (Component Side)



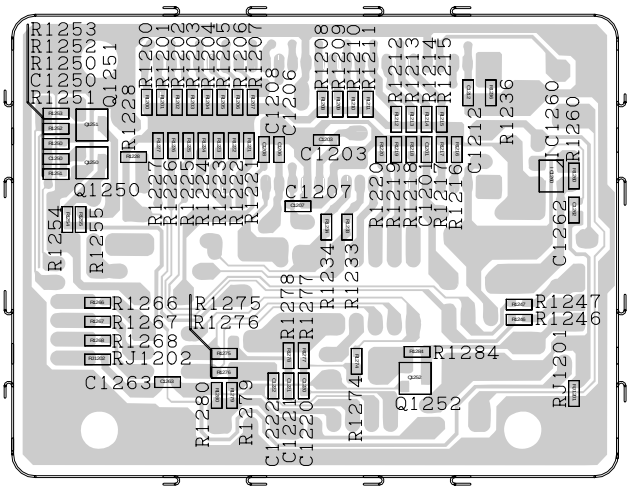
PWB-E: S-CONTROL UNIT (Wiring Side)



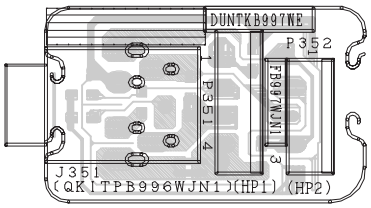
PWB-D: TELETEXT UNIT (Component Side)



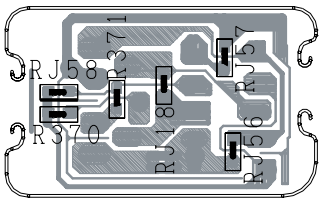
PWB-D: TELETEXT UNIT (Wiring Side)



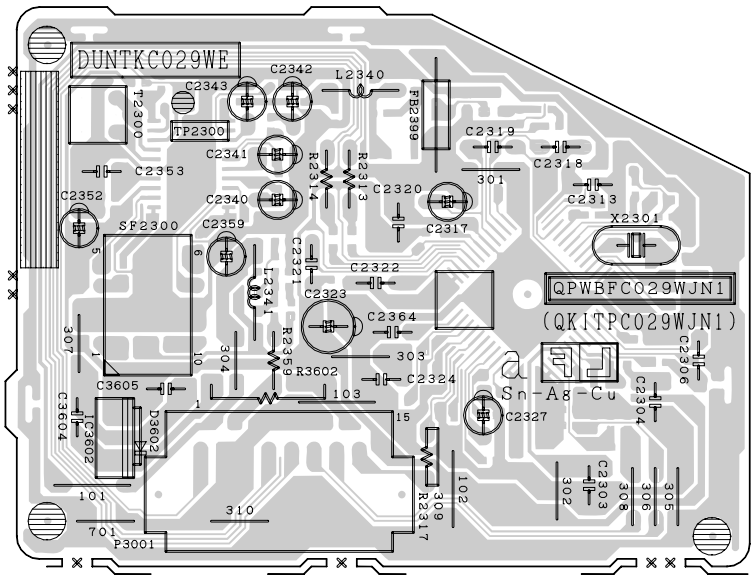
PWB-C: HEADPHONE UNIT (Component Side)



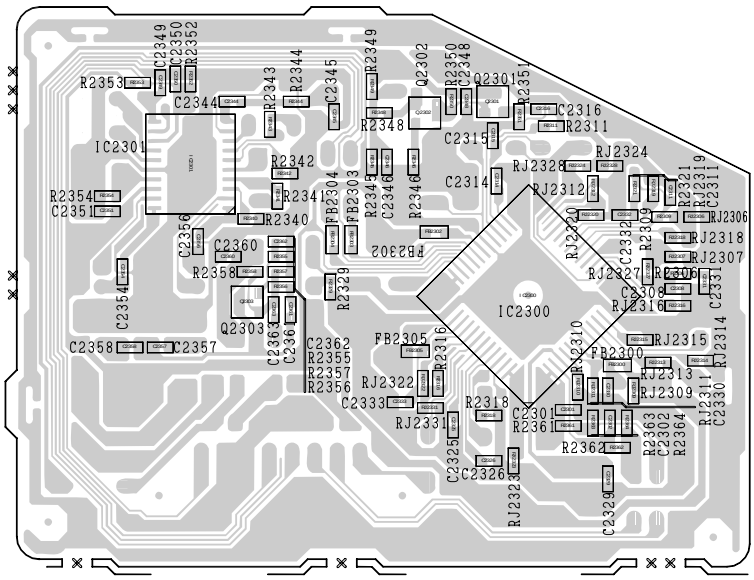
PWB-C: HEADPHONE UNIT (Wiring Side)



PWB-F: NICAM UNIT (Component Side)



PWB-F: NICAM UNIT (Wiring Side)



REPLACEMENT PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. **MODEL NUMBER**
2. **REF. NO.**
3. **PART NO.**
4. **DESCRIPTION**

MARK ★ : SPARE PARTS-DELIVERY SECTION.

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠	VB51QDX992X5E	R	Picture Tube	CG
	RCiLG0097PEZZ	R	Degaussing Coil	AP
	PMAGF3046CEZZ	R	Magnet	AF
	QEARCA012WJZZ	R	Ground-Part	AG

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

PWB-A	DUNTKB996WEA9	– MAIN Unit	—
PWB-B	DUNTKA599WEB8	– CRT Unit	—
PWB-C	DUNTKB997WEA1	– HEADPHONE Unit	—
PWB-D	DUNTKC038WEA0	– TELETEXT Unit	—
PWB-E	DUNTKC030WEA5	– S-CONTROL Unit	—
PWB-F	DUNTKC029WEA3	– NICAM Unit	—

Ref. No.	Part No.	★	Description	Code

DUNTKB996WEA9
PWB-A MAIN UNIT

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT INDEPENDENTLY.

TUNER

⚠	TU201	VTUVT1T5ED203	R	VHF Tuner	AX

INTEGRATED CIRCUITS

	IC301	VHiAN17821A-1	R	I.C.	AH
	IC305	VSiMX1C/C//-1Y	R	iMX1C	AC
	IC401	VHiMM1501XN-1Y	R	MM1501XNRE	AE
	IC402	VHiMM1501XN-1Y	R	MM1501XNRE	AE
	IC403	VHiMM1501XN-1Y	R	MM1501XNRE	AE
⚠	IC501	VHiSTV9302A-1	R	STV9302A	AH
	IC601	VHiKA7809AP-1	R	KIA7809API	AE
⚠	IC701	VHiTEA1507/-1	R	TEA1507P/N1	AL
⚠	IC703	VHiSE130N//-1	R	SE130N	AF
	IC801	VHiM61262BF1EQ	R	I.C.	AZ
	IC1001	RH-iXA319WJN4	R	I.C.	AT
	IC1003	VHiBR24L08F-1Y	R	BR24L08F	AE
	IC1007	VSiMX1C/C//-1Y	R	iMX1C	AC

TRANSISTORS

	Q201	VS2SC2735//1EY	R	2SC2735	AC
	Q202	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q302	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q601	VS2SC2482//-1+	R	2SC2482	AD
⚠	Q602	VS2SD2539//1E	R	2SD2539	AP
	Q603	VS2PC1815G+-1+	R	2PC1815G+	AC
	Q604	VS2PD601AR/-1Y	R	2PD601AR	AB
⚠	Q701	VSSTP8NK80Z1E	R	STP8NK80Z	AL
	Q703	VS2PC1815Y+-1+	R	2PC1815Y+	AC
	Q740	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q741	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q751	VS2SC2236Y/-1+	R	2SC2236Y	AD
	Q752	VS2SC2236Y/-1+	R	2SC2236Y	AD
	Q753	VS2PC1815G+-1+	R	2PC1815G+	AC
	Q754	VS2SC2236Y/-1+	R	2SC2236Y	AD
	Q755	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q803	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q804	VS2PB709AR/-1Y	R	2PB709AR	AB
	Q805	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q1001	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q1002	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q1070	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q1073	VS2PD601AR/-1Y	R	2PD601AR	AB

DIODES

	D201	RH-EX0676GEZZY	R	Zener Diode, 33V	AA
	D202	VHD1SS356//-1Y	R	1SS356	AC
	D203	VHD1SS119//-1Y	R	1SS119	AA
	D204	VHD1SS119//-1Y	R	1SS119	AA
	D393	RH-DX0247CEZZ	R	DX0247CE	AE
	D502	RH-EX0652GEZZY	R	Zener Diode, 18V	AB
	D503	RH-EX0612GEZZY	R	Zener Diode, 5.1V	AB
	D504	RH-EX0654CEZZY	R	Zener Diode	AD
	D505	RH-DX0441CEZZY	R	DX0441CE	AC
	D510	RH-DX0131CEZZY	R	DX0131CE	AC
	D601	VHD1SS119//-1Y	R	1SS119	AA
▲	D602	VHD1SS244//-1Y	R	1SS244	AB
▲	D603	RH-EX0662GEZZY	R	Zener Diode, 27V	AB
	D604	VHD1SS119//-1Y	R	1SS119	AA
	D605	RH-EX0621GEZZY	R	Zener Diode, 6.8V	AB
⚠	D606	RH-DX0131CEZZY	R	DX0131CE	AC
	D607	VHD1SS119//-1Y	R	1SS119	AA
	D608	RH-DX0131CEZZY	R	DX0131CE	AC
	D610	VHD1SS119//-1Y	R	1SS119	AA
⚠	D701	RH-DX0476CEZZ	R	DX0476CE	AG
	D703	VHD1SS119//-1Y	R	1SS119	AA
	D708	VHD1SS119//-1Y	R	1SS119	AA
	D710	VHD1SS119//-1Y	R	1SS119	AA
	D711	VHD1SS119//-1Y	R	1SS119	AA
	D717	RH-EX0650GEZZY	R	Zener Diode, 16V	AB
	D750	RH-EX0647CEZZY	R	Zener Diode, 150V	AH

Ref. No.	Part No.	★	Description	Code
D751	RH-DX0229CEZZ	R	DX0229CE	AF
D752	RH-DX0302CEZZY	R	DX0302CE	AC
D801	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D806	VHD1SS119//-1Y	R	1SS119	AA
D807	RH-EX0625GEZZY	R	Zener Diode, 8V	AB
D808	VHD1SS119//-1Y	R	1SS119	AA
D810	RH-EX0263TAZZY	R	Zener Diode, 8.1V	AC
D811	RH-EX0263TAZZY	R	Zener Diode, 8.1V	AC
D812	RH-EX0263TAZZY	R	Zener Diode, 8.1V	AC
D1001	RH-PX0013PEZZ	R	PhotoDiode	AC
D1004	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1040	RH-EX0611GEZZY	R	Zener Diode	AA
D1081	VHD1SS119//-1Y	R	1SS119	AA
D1085	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1086	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1087	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1088	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1089	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D1090	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1091	VHD1SS119//-1Y	R	1SS119	AA
D1092	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1093	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1094	VHD1SS119//-1Y	R	1SS119	AA
⚠ IC702	RH-FXA003WJZZ	R	PC123Y82	AD
⚠ VA701	RH-VX0073CEZZ	R	Varistor	AD
			PACKAGED CIRCUITS	
PR701	RMPTP0001PEZZ	R	Packaged Circuit	AN
X801	RCRSAA019WJZZ	R	Crystal	AF
			COILS	
L202	VP-CF270K0000Y	R	Peaking, 27µH	AB
L203	VP-DF270K0000Y	R	Peaking, 27µH	AB
L204	VP-XF1R2K0000Y	R	Peaking, 1.2µH	AB
L208	VP-XF100K0000Y	R	Peaking, 10µH	AB
L602	RCiLP0223CEZZ	R	Coil	AE
L603	RCiLZA006WJZZ	R	Coil	AH
⚠ L701	RCiLF0086PEN1	R	Coil	AF
L751	RCiLP0225CEZZ	R	Coil	AF
L801	VP-CF220K0000Y	R	Peaking, 22µH	AB
L802	VP-DF100K0000Y	R	Peaking, 10µH	AB
L803	VP-DF100K0000Y	R	Peaking, 10µH	AB
L806	VP-DF100K0000Y	R	Peaking, 10µH	AB
L808	VP-XF330K0000Y	R	Peaking, 33µH	AB
			FILTER	
SF201	RFiLC0037PEZZ	R	Filter	AP
			TRANSFORMERS	
⚠ T601	RTRNZ0026PEZZ	R	Transformer	AH
▲⚠ T602	RTRNFA071WJZZ	R	H-Volt Transformer	AX
⚠ T701	RTRNWA076WJZZ	R	Transformer	AM
			CAPACITORS	
C201	VCEA0A1CW476M+R		47 16V Electrolytic	AB
C202	VCEA0A0JW108M+	R	1000 6.3V Electrolytic	AC
C203	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C205	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C206	VCEA0A1HW106M+R		10 50V Electrolytic	AB
C207	VCKYPA1HB103K+	R	0.01 50V Ceramic	AA
C208	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C209	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C210	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C213	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C301	VCEA0A1CW477M+R		470 16V Electrolytic	AC
C302	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C303	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C304	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C307	VCEA0A1HW474M+R		0.47 50V Electrolytic	AB
C308	VCKYCY1HB682KY	R	6800p 50V Ceramic	AA
C310	VCEA0A1HW225M+R		2.2 50V Electrolytic	AB
C311	VCEA0A1HW474M+R		0.47 50V Electrolytic	AB
C312	VCE9GA1HW474M+R		0.47 50V Electrolytic(N.P)	AB
C313	VCKYCY1HB682KY	R	6800p 50V Ceramic	AA
C322	VCEA0A1HW106M+R		10 50V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code
C376	VCEA0A1CW107M+R		100 16V Electrolytic	AC
C377	VCEA0A1CW107M+R		100 16V Electrolytic	AC
C383	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C387	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C391	VCKYPA1HB102K+	R	1000p 50V Ceramic	AA
C392	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
C393	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C401	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C403	VCKYCY1EF104ZY	R	0.1 25V Ceramic	AA
C404	VCEA9M1CW106M+R		10 16V Electrolytic	AB
C434	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C435	VCE9GA1CW106M+R		10 16V Electrolytic(N.P)	AB
C436	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C451	VCEA0A1CW477M+R		470 16V Electrolytic	AC
C452	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C453	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C454	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C455	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C505	VCEA0A1HW107M+R		100 50V Electrolytic	AB
C508	VCFYAA2AA224J+	R	0.22 100V	AD
C509	VCKYD41CY103NY	R	0.01 16V Ceramic	AB
C511	VCEA0A1VW477M+R		470 35V Electrolytic	AB
C512	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
C513	VCEA0H1VW478M	R	4700 35V Electrolytic	AL
C514	VCFYSA1JB273J+	R	0.027 63V MetalIzed Polypro Film	AC
C515	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
C518	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C601	VCQYTA1HM563J+	R	0.056 50V Mylar	AB
C602	VCEA0A1HW475M+R		4.7 50V Electrolytic	AB
C603	VCEA0A1HW105M+R		1 50V Electrolytic	AB
C604	VCEAGA2EW336M	R	33 250V Electrolytic	AD
C605	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
C606	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
▲⚠ C607	VCFPVC3ZA902H	R	9000p 1800V MetalIzed Polypro Film	AD
C608	VCKYPA2HB561K+	R	560p 500V Ceramic	AA
C610	VCFYSB2EB823J	R	0.082 250V MetalIzed Polypro Film	AD
C611	VCFPVC2DB244J	R	0.24 200V MetalIzed Polypro Film	AD
C641	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C642	VCEA0A1EW476M+R		47 25V Electrolytic	AB
C643	VCEA0A1CW476M+R		47 16V Electrolytic	AB
C650	VCKYPA2HB101K+	R	100p 500V Ceramic	AB
⚠ C701	RC-FZ033SCEZZ	R	0.47	AF
C702	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
C703	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
C704	RC-KZ0029CEZZ	R	0.01 250V Ceramic	AC
⚠ C705	RC-EZA097WJZZ	R	220 400V	AM
C706	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
⚠ C708	RC-FZ031SCEZZ	R	0.1	AD
⚠ C711	VCFYFA1HA334J+	R	0.33 50V	AB
C713	RC-KZ0107GEZZ	R	3900p 250V	AE
C718	VCKYPA2HB472K+	R	4700p 500V Ceramic	AB
C735	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
C737	VCEA0A1EW226M+R		22 25V Electrolytic	AB
C738	RC-KZ0040CEZZ	R	820p 2kV Ceramic	AD
C743	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C752	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C753	RC-EZ0776CEZZ	R	100 160V Electrolytic	AF
C754	RC-EZA069WJZZ	R	33 160V Electrolytic	AE
C755	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C756	VCEA0A1EW228M	R	2200 25V Electrolytic	AF
C758	VCEA0A1HW225M+R		2.2 50V Electrolytic	AB
C759	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C784	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C801	VCFYFA1HA105J+	R	1 50V Mylar	AE
C802	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C803	VCEA0A1CW108M+R		1000 16V Electrolytic	AD
C804	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C805	VCEA9M1HW105M+R		1 50V Electrolytic	AB
C806	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C807	VCEA0A1CW108M+R		1000 16V Electrolytic	AD
C808	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C809	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA

Ref. No.	Part No.	★			Description	Code
C810	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C811	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C812	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C813	VCCCCY1HH181JY	R	180p	50V	Ceramic	AA
C814	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C815	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C817	VCEA9M1AW107M+R	R	100	10V	Electrolytic	AB
C818	VCEA0A1HW475M+R	R	4.7	50V	Electrolytic	AB
C819	VCCCCY1HH121JY	R	120p	50V	Ceramic	AA
C820	VCEA0A1HW474M+R	R	0.47	50V	Electrolytic	AB
C821	VCKYCY1HF153ZY	R	0.015	50V	Ceramic	AA
C822	VCE9GA1HW105M+R	R	1	50V	Electrolytic(N.P)	AB
C823	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C824	VCEA0A1CW337M+R	R	330	16V	Electrolytic	AC
C825	VCE9GA1HW105M+R	R	1	50V	Electrolytic(N.P)	AB
C826	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C827	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C828	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C829	VCEA0A1CW476M+R	R	47	16V	Electrolytic	AB
C831	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C833	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C834	VCEA0A1CW107M+R	R	100	16V	Electrolytic	AC
C835	VCEA0A1CW106M+R	R	10	16V	Electrolytic	AB
C837	VCEA0A1HW105M+R	R	1	50V	Electrolytic	AB
C839	VCKYCY1HB392KY	R	3900p	50V	Ceramic	AA
C840	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C841	VCCCCY1HH220JY	R	22p	50V	Ceramic	AA
C842	VCEA9M1HW474M+R	R	0.47	50V	Electrolytic	AB
C843	VCEA9M1HW105M+R	R	1	50V	Electrolytic	AB
C844	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C845	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C847	VCCCCY1HH220JY	R	22p	50V	Ceramic	AA
C1001	VCEA0A0JW107M+	R	100	6.3V	Electrolytic	AB
C1002	VCQYTA1HM103J+	R	0.01	50V	Mylar	AB
C1003	VCEA0A1CW106M+R	R	10	16V	Electrolytic	AB
C1004	VCKYCY1CF474ZY	R	0.47	16V	Ceramic	AB
C1006	VCEA0A1HW225M+R	R	2.2	50V	Electrolytic	AB
C1007	VCEA0A1CW107M+R	R	100	16V	Electrolytic	AC
C1008	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C1009	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C1011	VCKYCY1HB221KY	R	220p	50V	Ceramic	AA
C1012	VCEA0A1HW105M+R	R	1	50V	Electrolytic	AB
C1014	VCEA0A1HW475M+R	R	4.7	50V	Electrolytic	AB
C1015	VCCCCY1HH101JY	R	100p	50V	Ceramic	AA
C1081	VCQYTA1HM104J+	R	0.1	50V	Mylar	AB
C1805	VCCCCY1HH101JY	R	100p	50V	Ceramic	AA
C1856	VCKYCY1HB102KY	R	1000p	50V	Ceramic	AA
C1857	VCFYFA1HA105J+	R	1	50V	Mylar	AE
C1866	VCKYCY1HB182KY	R	1800p	50V	Ceramic	AA
C1867	VCCCCY1HH150JY	R	15p	50V	Ceramic	AA
C1868	VCEA9M0JW107M+R	R	100	6.3V	Electrolytic	AB
C1869	VCKYCY1HB472KY	R	4700p	50V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★			Description	Code
RJ11	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ12	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ17	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ22	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ34	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ37	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ40	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ45	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ93	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ101	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ108	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ118	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ119	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ123	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ125	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ133	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ134	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ135	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ136	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ137	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ138	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ150	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ151	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ152	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ155	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ158	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ160	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ162	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ163	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ164	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ165	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ168	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ171	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ176	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ177	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ179	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ180	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ181	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ182	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ186	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
R201	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R202	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R205	VRS-CY1JF680JY	R	68	1/16W	Metal Oxide	AA
R206	VRS-CY1JF122JY	R	1.2k	1/16W	Metal Oxide	AA
R207	VRS-CY1JF221JY	R	220	1/16W	Metal Oxide	AA
R208	VRS-CY1JF271JY	R	270	1/16W	Metal Oxide	AA
R209	VRS-CY1JF392JY	R	3.9k	1/16W	Metal Oxide	AA
R210	VRS-CY1JF392JY	R	3.9k	1/16W	Metal Oxide	AA
R211	VRS-CY1JF682JY	R	6.8k	1/16W	Metal Oxide	AA
R212	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R213	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R214	VRD-RA2BE473JY	R	47k	1/8W	Carbon	AA
R216	VRS-VV3LB333J	R	33k	3W	Metal Oxide	AB
R218	VRD-RA2BE680JY	R	68	1/8W	Carbon	AA
R220	VRS-CY1JF221JY	R	220	1/16W	Metal Oxide	AA
R302	VRN-VV3DB1R2J	R	1.2	2W	Metal Film	AA
R303	VRS-CY1JF124JY	R	120k	1/16W	Metal Oxide	AA
R304	VRD-RA2BE683JY	R	68k	1/8W	Carbon	AA
R307	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R308	VRS-CY1JF562JY	R	5.6k	1/16W	Metal Oxide	AA
R310	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R311	VRD-RA2BE272JY	R	2.7k	1/8W	Carbon	AA
R313	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R314	VRS-CY1JF562JY	R	5.6k	1/16W	Metal Oxide	AA
R315	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R317	VRD-RA2BE680JY	R	68	1/8W	Carbon	AA
R318	VRS-CY1JF680JY	R	68	1/16W	Metal Oxide	AA
R353	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R356	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R362	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R363	VRS-CY1JF564JY	R	560k	1/16W	Metal Oxide	AA
R364	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R365	VRS-CY1JF564JY	R	560k	1/16W	Metal Oxide	AA
R372	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R373	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R374	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R375	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R376	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R377	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R378	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R379	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R381	VRS-CY1JF564JY	R	560k	1/16W	Metal Oxide	AA
R382	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R383	VRS-CY1JF564JY	R	560k	1/16W	Metal Oxide	AA
R384	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R431	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R432	VRS-CY1JF750JY	R	75	1/16W	Metal Oxide	AA
R433	VRS-CY1JF750JY	R	75	1/16W	Metal Oxide	AA
R434	VRS-CY1JF750JY	R	75	1/16W	Metal Oxide	AA
R435	VRS-CY1JF750JY	R	75	1/16W	Metal Oxide	AA
R436	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R437	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R438	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R439	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R458	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R459	VRD-RA2EE750JY	R	75	1/4W	Carbon	AA
R461	VRS-CY1JF750JY	R	75	1/16W	Metal Oxide	AA
R462	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★			Description	Code
R503	VRN-VV3DB1R2J	R	1.2	2W	Metal Film	AA
R504	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R506	VRS-VV3AB331J	R	330	1W	Metal Oxide	AA
R507	VRD-RM2HD1R0JY	R	1	1/2W	Carbon	AA
R513	VRD-RM2HD333JY	R	33k	1/2W	Carbon	AB
R514	VRD-RM2HD682JY	R	6.8k	1/2W	Carbon	AA
R520	VRS-CY1JF123JY	R	12k	1/16W	Metal Oxide	AA
R522	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R523	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R524	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R525	VRD-RA2BE123JY	R	12k	1/8W	Carbon	AA
R526	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R528	VRS-CY1JF683JY	R	68k	1/16W	Metal Oxide	AA
R602	VRD-RA2BE393JY	R	39k	1/8W	Carbon	AA
R603	VRD-RA2BE273JY	R	27k	1/8W	Carbon	AA
R604	VRD-RA2BE473JY	R	47k	1/8W	Carbon	AA
R605	VRD-RM2HD104JY	R	100k	1/2W	Carbon	AA
R606	VRN-VV3LBR27J	R	0.27	3W	Metal Film	AC
R607	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
⚠ R608	VRD-RM2HD102JY	R	1k	1/2W	Carbon	AA
⚠ R611	VRN-VV3ABR27J	R	0.27	1W	Metal Film	AA
⚠ R612	VRD-RM2HD270JY	R	27	1/2W	Carbon	AA
▲ R614	VRD-RA2BE154JY	R	150k	1/8W	Carbon	AA
▲ R615	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R616	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R617	VRS-CY1JF123JY	R	12k	1/16W	Metal Oxide	AA
R618	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R619	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R620	VRS-CY1JF333JY	R	33k	1/16W	Metal Oxide	AA
R621	VRN-SV2HC4R7JY	R	4.7	1/2W	Metal Film	AB
R622	VRS-VV3DB682J	R	6.8k	2W	Metal Oxide	AA
R631	VRS-KT3LB391J	R	390	3W	Metal Oxide	AD
R632	VRS-VV3LB122J	R	1.2k	3W	Metal Oxide	AB
⚠ R633	VRS-KA3NG3R3K	R	3.3	7W	Metal Oxide	AD
R636	VRS-KA3HG912J	R	9.1k	5W	Metal Oxide	AD
R637	VRD-RA2BE331JY	R	330	1/8W	Carbon	AA
R638	VRD-RA2BE331JY	R	330	1/8W	Carbon	AA
R639	VRD-RM2HD562JY	R	5.6k	1/2W	Carbon	AA
R653	VRD-RM2HD184JY	R	180k	1/2W	Carbon	AA
R654	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R661	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R662	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R701	VRW-KQ3NC1R5K	R	1.5	7W	Cement	AE
R702	VRD-RM2HD100JY	R	10	1/2W	Carbon	AA
R705	VRN-VV3DBR27J	R	0.27	2W	Metal Film	AB
R706	VRN-VV3DBR27J	R	0.27	2W	Metal Film	AB
R707	VRD-RM2HD270JY	R	27	1/2W	Carbon	AA
R708	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R710	VRS-SV2HC103J	R	10k	1/2W	Metal Oxide	AA
R711	VRD-RA2BE394JY	R	390k	1/8W	Carbon	AA
R713	VRD-RM2HD122JY	R	1.2k	1/2W	Carbon	AA
R715	VRD-RA2BE150JY	R	15	1/8W	Carbon	AA
R716	VRD-RA2BE223JY	R	22k	1/8W	Carbon	AA
R718	VRC-UA2HG275KY	R	2.7M	1/2W	Solid	AC
R725	VRD-RM2HD821JY	R	820	1/2W	Carbon	AA
R726	VRN-SV2HCR47J	R	0.47	1/2W	Metal Film	AA
R730	VRW-GA4AB1R5K	R	1.5	10W	Cement	AE
R742	VRD-RA2BE183JY	R	18k	1/8W	Carbon	AA
R743	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R744	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R745	VRS-CY1JF822JY	R	8.2k	1/16W	Metal Oxide	AA
R746	VRD-RA2BE223JY	R	22k	1/8W	Carbon	AA
R751	VRC-UA2HG825KY	R	8.2M	1/2W	Solid	AA
⚠ R752	VRC-UA2HG825KY	R	8.2M	1/2W	Solid	AA
R753	VRD-RM2HD124JY	R	120k	1/2W	Carbon	AA
R754	VRS-KA3NG220J	R	22	7W	Metal Oxide	AD
R755	VRS-VV3DB150J	R	15	2W	Metal Oxide	AA
R756	VRS-VV3DB101J	R	100	2W	Metal Oxide	AA
R760	VRS-CY1JF123JY	R	12k	1/16W	Metal Oxide	AA
R766	VRS-CY1JF333JY	R	33k	1/16W	Metal Oxide	AA
R768	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R801	VRD-RA2BE273JY	R	27k	1/8W	Carbon	AA
R802	VRS-CY1JF682JY	R	6.8k	1/16W	Metal Oxide	AA
R803	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R804	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R805	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R806	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R807	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R811	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R812	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R814	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R815	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R816	VRS-CY1JF223JY	R	22k	1/16W	Metal Oxide	AA
R817	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R818	VRS-VV3AB101J	R	100	1W	Metal Oxide	AA
R823	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R824	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R826	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R827	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R829	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R830	VRS-CY1JF393JY	R	39k	1/16W	Metal Oxide	AA
R831	VRS-CY1JF331JY	R	330	1/16W	Metal Oxide	AA
R832	VRS-CY1JF822JY	R	8.2k	1/16W	Metal Oxide	AA
R833	VRS-CY1JF220JY	R	22	1/16W	Metal Oxide	AA
R835	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R836	VRD-RA2BE470JY	R	47	1/8W	Carbon	AA
R837	VRD-RM2HD151JY	R	150	1/2W	Carbon	AA
R838	VRS-CY1JF105JY	R	1M	1/16W	Metal Oxide	AA
R839	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R840	VRS-CY1JF124JY	R	120k	1/16W	Metal Oxide	AA
R843	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R845	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1002	VRS-CY1JF183JY	R	18k	1/16W	Metal Oxide	AA
R1003	VRS-CY1JF822JY	R	8.2k	1/16W	Metal Oxide	AA
R1006	VRS-CY1JF822JY	R	8.2k	1/16W	Metal Oxide	AA
R1007	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R1008	VRS-CY1JF183JY	R	18k	1/16W	Metal Oxide	AA
R1009	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R1012	VRS-CY1JF391JY	R	390	1/16W	Metal Oxide	AA
R1021	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1022	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1023	VRD-RA2BE271JY	R	270	1/8W	Carbon	AA
R1024	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1027	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R1031	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1032	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1034	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R1035	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1036	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1037	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1038	VRS-CY1JF562JY	R	5.6k	1/16W	Metal Oxide	AA
R1039	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R1040	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1042	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R1043	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R1044	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1045	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R1046	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1047	VRD-RA2BE183JY	R	18k	1/8W	Carbon	AA
R1048	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1049	VRD-RA2BE183JY	R	18k	1/8W	Carbon	AA
R1050	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R1051	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1052	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R1053	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R1054	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1055	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1056	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1059	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R1061	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R1063	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA
R1064	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1065	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1072	VRS-CY1JF221JY	R	220	1/16W	Metal Oxide	AA
R1073	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1074	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1076	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R1078	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1079	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R1087	VRD-RA2BE391JY	R	390	1/8W	Carbon	AA
R1095	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1096	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA

Ref. No.	Part No.	★	Description	Code
R1840	VRS-CY1JF395JY	R	3.9M 1/16W Metal Oxide	AA
R1841	VRS-CY1JF395JY	R	3.9M 1/16W Metal Oxide	AA
R1849	VRS-CY1JF271JY	R	270 1/16W Metal Oxide	AA
R1850	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1851	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1852	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1853	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1854	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1855	VRD-RA2BE122JY	R	1.2k 1/8W Carbon	AA
R1856	VRS-CY1JF223JY	R	22k 1/16W Metal Oxide	AA
R1863	VRS-CY1JF185JY	R	1.8M 1/16W Metal Oxide	AA
R1864	VRS-CY1JF185JY	R	1.8M 1/16W Metal Oxide	AA
R1865	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R1866	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R1867	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1892	VRS-CY1JF562JY	R	5.6k 1/16W Metal Oxide	AA
R1894	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1895	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1896	VRS-CY1JF393JY	R	39k 1/16W Metal Oxide	AA

SWITCHES

Ref. No.	Part No.	★	Description	Code
⚠ S701	QSW-PA006WJZZ	R	Switch, POWER	AG
S1001	QSW-K0077GEZZ+	R	Switch, CH UP	AC
S1002	QSW-K0077GEZZ+	R	Switch, CH DOWN	AC
S1003	QSW-K0077GEZZ+	R	Switch, VOL. UP	AC
S1004	QSW-K0077GEZZ+	R	Switch, VOL. DOWN	AC
S1005	QSW-K0077GEZZ+	R	Switch, MENU	AC

BALUNES

Ref. No.	Part No.	★	Description	Code
FB701	RBLN-0095GEZZ+	R	Balun	AC
FB703	RBLN-0037CEZZY	R	Balun	AB

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
⚠ F701	QFS-C3229CEZZ	R	Fuse, 3.15A/250V	AD
FH701	QFSHD1013CEZZ+	R	Fuse Holder	AC
FH702	QFSHD1014CEZZ+	R	Fuse Holder	AC
J401	QJAKGA015WJZZ	R	Jack, 9Pin	AH
J402	QJAKEA033WJ04	R	Jack, 3Pin	AC
J403	QJAKEA033WJ09	R	Jack, 3Pin	AC
J404	QJAKEA020WJ02	R	Jack, 3Pin	AC
J405	QTANJ0644CEZZ	R	AV-1 In Terminal	AM
P302	QPLGNA109WJZZ	R	Plug, 4Pin(S)	AB
P303	QPLGNA112WJZZ	R	Plug, 7Pin(HP)	AB
P403	QPLGNA107WJZZ	R	Plug, 2Pin(FV)	AA
P404	QPLGNA107WJZZ	R	Plug, 2Pin(FV)	AA
P601	QPLGN0660CEZZ	R	Plug, 6Pin(F)	AC
P602	QPLGNA110WJZZ	R	Plug, 5Pin(H)	AB
P701	QPLGN0260CEZZ	R	Plug, 2Pin(M)	AC
P702	QPLGN0269GEZZ	R	Plug, 2Pin	AB
P1001	QPLGNA136WJZZ	R	Plug, 5Pin(K)	AB
P1002	QPLGNA110WJZZ	R	Plug, 5Pin(BC)	AB
P1102	QPLGNA110WJZZ	R	Plug, 5Pin(TT)	AB
P1103	QPLGNA112WJZZ	R	Plug, 7Pin(TX)	AB
P1104	QPLGNA111WJZZ	R	Plug, 6Pin(TE)	AB
RDA501	PRDARA010WJFW	R	Heat Sink for IC501	AD
RDA602	PRDAR0224PEFW	R	Heat Sink for Q602	AF
RDA701	PRDARA026WJFW	R	Heat Sink for Q701	AE
RMC1001	RRMCUA009WJZZ	R	Remote Receiver	AF
⚠ RY701	RRLYJ0093CEZZ	R	Relay	AG
SC304	QSOCZ1541CEZZ	R	Socket, 15Pin(NI)	AD
SC305	QSOCN0259FJ00	R	Socket, 10Pin(EB)	AE
SC306	QSOCN0259FJ00	R	Socket, 10Pin(EA)	AE
TP801	QLUGP0111GEFW	R	Lug	AA
	LHLDP1066PE00	R	LED Holder	AC

DUNTKA599WEB8
PWB-B CRT UNIT

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q853	VS2SC3789//2E	R	2SC3789	AF
Q854	VS2SC3789//2E	R	2SC3789	AF
Q855	VS2SC3789//2E	R	2SC3789	AF
Q894	VS2PA1015Y+-1+	R	2PA1015Y+	AC

DIODES

Ref. No.	Part No.	★	Description	Code
D859	VHD1SS119//-1Y	R	1SS119	AA
D896	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D898	VHD1SS119//-1Y	R	1SS119	AA

COIL

Ref. No.	Part No.	★	Description	Code
L851	VP-MK820K0000+	R	Peaking, 82µH	AB

CAPACITORS

Ref. No.	Part No.	★	Description	Code
C851	VCKYPA1HB271K+	R	270p 50V Ceramic	AB
C852	VCKYPA1HB271K+	R	270p 50V Ceramic	AB
C853	VCKYPA1HB221K+	R	220p 50V Ceramic	AA
C880	RC-KZ0153CEZZ	R	1000p 3kV Ceramic	AB
C893	VCEA0A1CW336M+	R	33 16V Electrolytic	AB

RESISTORS

Ref. No.	Part No.	★	Description	Code
R849	VRD-RA2BE271JY	R	270 1/8W Carbon	AA
R850	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R851	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R852	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R854	VRD-RA2BE271JY	R	270 1/8W Carbon	AA
R855	VRD-RA2BE271JY	R	270 1/8W Carbon	AA
⚠ R859	VRS-VV3DB123J	R	12k 2W Metal Oxide	AA
⚠ R861	VRS-VV3DB123J	R	12k 2W Metal Oxide	AA
⚠ R863	VRS-VV3DB123J	R	12k 2W Metal Oxide	AA
R864	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R876	VRD-RA2BE121JY	R	120 1/8W Carbon	AA
R877	VRD-RA2BE121JY	R	120 1/8W Carbon	AA
R878	VRD-RA2BE121JY	R	120 1/8W Carbon	AA
R880	VRD-RM2HD332JY	R	3.3k 1/2W Carbon	AA
R881	VRD-RM2HD332JY	R	3.3k 1/2W Carbon	AA
R882	VRD-RM2HD332JY	R	3.3k 1/2W Carbon	AA
R889	VRD-RA2BE821JY	R	820 1/8W Carbon	AA
R891	VRD-RA2BE102JY	R	1k 1/8W Carbon	AA
R892	VRD-RA2BE391JY	R	390 1/8W Carbon	AA
R894	VRD-RA2BE152JY	R	1.5k 1/8W Carbon	AA
R895	VRD-RA2EE561JY	R	560 1/4W Carbon	AA

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
P860	QPLGNA110WJZZ	R	Plug, 5Pin(H)	AB
P880	QPLGNA136WJZZ	R	Plug, 5Pin(K)	AB
SC851	QSOCV0016PEZZ	R	Socket, 12Pin	AF

DUNTKB997WEA1
PWB-C HEADPHONE UNIT

RESISTORS

Ref. No.	Part No.	★	Description	Code
RJ57	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
R370	VRS-CY1JF471JY	R	470 1/16W Metal Oxide	AA
R371	VRS-CY1JF471JY	R	470 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
J351	QJAKJ0101SEZZ	R	Jack, 7Pin	AE
P351	QPLGNA109WJZZ	R	Plug, 4Pin(HP1)	AB
P352	QPLGNA108WJZZ	R	Plug, 3Pin(HP2)	AB

DUNTKC038WEA0
PWB-D TELETEXT UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC1200	VHiSAA5264+1E	R	SAA5264	BE
IC1260	VHiNJM2870F33Y	R	I.C.	AF

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q1250	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1251	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1252	VS2PD601AR/-1Y	R	2PD601AR	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D1200	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA

Ref. No.	Part No.	★	Description	Code
D1201	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA
D1205	RH-EX0603GEZZY	R	Zener Diode	AA
D1211	VHD1SS119//-1Y	R	1SS119	AA
D1212	VHD1SS119//-1Y	R	1SS119	AA
D1213	VHD1SS119//-1Y	R	1SS119	AA
D1217	VHD1SS119//-1Y	R	1SS119	AA
D1218	VHD1SS119//-1Y	R	1SS119	AA
D1219	RH-EX0610GEZZY	R	Zener Diode, 4.8V	AA
D1220	VHD1SS119//-1Y	R	1SS119	AA
D1221	VHD1SS119//-1Y	R	1SS119	AA
D1222	VHD1SS119//-1Y	R	1SS119	AA
D1223	VHD1SS119//-1Y	R	1SS119	AA
D1224	VHD1SS119//-1Y	R	1SS119	AA
D1225	VHD1SS119//-1Y	R	1SS119	AA
PACKAGED CIRCUIT				
X1200	RCRSB0281CEZZ	R	Crystal	AG
COIL				
L1202	VP-DF101K0000Y	R	Peaking, 100µH	AB
CAPACITORS				
C1200	VCFYFA1HA224J+	R	0.22 50V Mylar	AB
C1201	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C1202	VCEA0A1CW107M+R	R	100 16V Electrolytic	AC
C1203	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C1204	VCEA0A1CW107M+R	R	100 16V Electrolytic	AC
C1206	VCCCCY1HH330JY	R	33p 50V Ceramic	AA
C1207	VCCCCY1HH330JY	R	33p 50V Ceramic	AA
C1208	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C1209	VCEA0A1CW107M+R	R	100 16V Electrolytic	AC
C1212	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA
C1213	VCEA0A1HW225M+R	R	2.2 50V Electrolytic	AB
C1220	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA
C1221	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA
C1222	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA
C1250	VCCCCY1HH220JY	R	22p 50V Ceramic	AA
C1260	VCEA0A1HW474M+R	R	0.47 50V Electrolytic	AB
C1261	VCEA0A1HW104M+R	R	0.1 50V Electrolytic	AB
C1262	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C1263	VCCCCY1HH101JY	R	100p 50V Ceramic	AA
RESISTORS				
RJ1201	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ1202	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
R1200	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1201	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1202	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1203	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1204	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1205	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1206	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1207	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1208	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1209	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1210	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1211	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1212	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1213	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1214	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1215	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1216	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1217	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1218	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1219	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1220	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1221	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1222	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1223	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1224	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1227	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1228	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R1233	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R1234	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R1236	VRS-CY1JF243JY	R	24k 1/16W Metal Oxide	AA
R1246	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1247	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1251	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R1253	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R1254	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R1255	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R1260	VRS-CY1JF154JY	R	150k 1/16W Metal Oxide	AA
R1261	VRD-RM2HD221JY	R	220 1/2W Carbon	AA
R1262	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1263	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1264	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1265	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1266	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1267	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1268	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1274	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R1275	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R1276	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R1277	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1278	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1279	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1280	VRS-CY1JF272JY	R	2.7k 1/16W Metal Oxide	AA
R1281	VRD-RA2BE471JY	R	470 1/8W Carbon	AA
R1282	VRD-RA2BE471JY	R	470 1/8W Carbon	AA
R1283	VRD-RM2HD271JY	R	270 1/2W Carbon	AA
R1284	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
MISCELLANEOUS PARTS				
P1202	QPLGNA110WJZZ	R	Plug, 5Pin(TT)	AB
P1203	QPLGNA112WJZZ	R	Plug, 7Pin(TX)	AB
P1204	QPLGNA111WJZZ	R	Plug, 6Pin(TE)	AB

DUNTKC030WEA5
PWB-E S-CONTROL UNIT

INTEGRATED CIRCUIT				
IC3501	VHiNJW1142+-1Y	R	I.C.	AP
DIODES				
D3501	RH-EX0619GEZZY	R	Zener Diode	AA
D3502	RH-EX0619GEZZY	R	Zener Diode	AA
D3503	RH-EX1399CEZZY	R	Zener Diode, 9.1V	AB
D3504	RH-EX1399CEZZY	R	Zener Diode, 9.1V	AB
COIL				
L3501	VP-XF100K0000Y	R	Peaking, 10µH	AB
CAPACITORS				
C3501	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3502	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3503	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3504	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3505	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3506	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
C3507	VCEA0A1HW475M+R	R	4.7 50V Electrolytic	AB
C3508	VCEA0A1HW475M+R	R	4.7 50V Electrolytic	AB
C3509	VCQYTA1HM223J+	R	0.022 50V Mylar	AB
C3510	VCQYTA1HM223J+	R	0.022 50V Mylar	AB
C3511	VCQYTA1HM222J+	R	2200p 50V Mylar	AA
C3512	VCQYTA1HM222J+	R	2200p 50V Mylar	AA
C3513	VCFYFA1HA224J+	R	0.22 50V Mylar	AB
C3514	VCFYFA1HA224J+	R	0.22 50V Mylar	AB
C3515	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3516	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3517	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3518	VCFYFA1HA334J+	R	0.33 50V Mylar	AB
C3519	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3520	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3521	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3522	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C3523	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA
C3524	VCEA0A1CW477M+R	R	470 16V Electrolytic	AC
C3525	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C3526	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
RESISTORS				
RJ3501	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
R3501	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3502	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3503	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3504	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3505	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3506	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3507	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3508	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
MISCELLANEOUS PARTS				
P3008	QPLGN0242FJ00	R	Plug, 10Pin(EA)	AE
P3009	QPLGN0242FJ00	R	Plug, 10PIn(EB)	AE

DUNTKC029WEA3
PWB-F NICAM UNIT

Ref. No.	Part No.	★	Description	Code
INTEGRATED CIRCUITS				
IC2300	VHiTDA9874A-1Q	R	TDA9874AH	BB
IC2301	VHiTDA9808T-1Y	R	TDA9808T	AR
IC3602	VHiKA7805AP-1	R	KIA7805API	AE
TRANSISTORS				
Q2301	VS2PD601AR/-1Y	R	2PD601AR	AB
Q2302	VS2SC2735//1EY	R	2SC2735	AC
Q2303	VS2SC2735//1EY	R	2SC2735	AC
DIODE				
D3602	VHD1SS119//-1Y	R	1SS119	AA
PACKAGED CIRCUIT				
X2301	RCRSB0295CEZZ	R	Crystal	AH
COILS				
L2340	VP-XF220K0000Y	R	Peaking, 22µH	AB
L2341	VP-XF1R2M0000Y	R	Peaking, 1.2µH	AB
T2300	RCiLD0231CEZZ	R	Detection Coil	AF
FILTER				
SF2300	RFiLC0016PEZZ	R	Filter	AS
CAPACITORS				
C2301	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2302	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2303	VCFYFA1HA474J+	R	0.47 50V Mylar	AC
C2304	VCFYFA1HA474J+	R	0.47 50V Mylar	AC
C2313	VCFYFA1HA474J+	R	0.47 50V Mylar	AC
C2314	VCCCCY1HH470JY	R	47p 50V Ceramic	AA
C2315	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2316	VCCCCY1HH470JY	R	47p 50V Ceramic	AA
C2317	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C2320	VCFYFA1HA474J+	R	0.47 50V Mylar	AC
C2323	VCEA0A1CW228M+R	R	2200 16V Electrolytic	AD
C2324	VCFYFA1HA474J+	R	0.47 50V Mylar	AC
C2325	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2326	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2327	VCEA0A1CW476M+R	R	47 16V Electrolytic	AB
C2340	VCEA0A1HW224M+R	R	0.22 50V Electrolytic	AB
C2341	VCEA0A1HW104M+R	R	0.1 50V Electrolytic	AB
C2342	VCEA0A1CW226M+R	R	22 16V Electrolytic	AB
C2343	VCE9GA1HW105M+R	R	1 50V Electrolytic(N.P)	AB
C2344	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2345	VCCCCY1HH330JY	R	33p 50V Ceramic	AA
C2346	VCCCCY1HH330JY	R	33p 50V Ceramic	AA
C2348	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2349	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2350	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2351	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2352	VCEA0A1CW476M+R	R	47 16V Electrolytic	AB
C2353	VCFYFA1HA124J+	R	0.12 50V Metallzed Polypro Film	AC
C2354	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2356	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2357	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2358	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2359	VCEA0A1CW106M+R	R	10 16V Electrolytic	AB
C2360	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2361	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2362	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C2363	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C3604	VCFYFA1HA334J+	R	0.33 50V Mylar	AB
C3605	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
RESISTORS				
RJ2306	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2309	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2310	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2311	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2312	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2314	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2315	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2316	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2318	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2319	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2320	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2322	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2323	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2327	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2328	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
RJ2331	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
R2309	VRS-CY1JF822JY	R	8.2k 1/16W Metal Oxide	AA
R2311	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2313	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R2314	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R2316	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R2317	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R2318	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R2340	VRS-CY1JF223JY	R	22k 1/16W Metal Oxide	AA
R2341	VRS-CY1JF181JY	R	180 1/16W Metal Oxide	AA
R2342	VRS-CY1JF183JY	R	18k 1/16W Metal Oxide	AA
R2343	VRS-CY1JF561JY	R	560 1/16W Metal Oxide	AA
R2344	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2345	VRS-CY1JF183JY	R	18k 1/16W Metal Oxide	AA
R2346	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2348	VRS-CY1JF221JY	R	220 1/16W Metal Oxide	AA
R2349	VRS-CY1JF393JY	R	39k 1/16W Metal Oxide	AA
R2350	VRS-CY1JF152JY	R	1.5k 1/16W Metal Oxide	AA
R2351	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2352	VRS-CY1JF823JY	R	82k 1/16W Metal Oxide	AA
R2353	VRS-CY1JF823JY	R	82k 1/16W Metal Oxide	AA
R2354	VRS-CY1JF225JY	R	2.2M 1/16W Metal Oxide	AA
R2355	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R2356	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2357	VRS-CY1JF122JY	R	1.2k 1/16W Metal Oxide	AA
R2358	VRS-CY1JF392JY	R	3.9k 1/16W Metal Oxide	AA
R2359	VRD-RA2BE151JY	R	150 1/8W Carbon	AA
R2361	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R2362	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R3602	VRS-VV3DB180J	R	18 2W Metal Oxide	AA
BALUNES				
FB2300	RBLN-0062TAZZY	R	Balun	AB
FB2302	RBLN-0062TAZZY	R	Balun	AB
FB2303	RBLN-0067CEZZY	R	Balun	AB
FB2304	RBLN-0067CEZZY	R	Balun	AB
FB2305	RBLN-0062TAZZY	R	Balun	AB
MISCELLANEOUS PARTS				
P3001	QPLGZ1541CEZZ	R	Plug, 15Pin(NI)	AD
TP2300	QLUGP0111GEFW	R	Lug	AA
	PSLDMA097WJFW	R	Shield	AD

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
⚠ ACC701	QACCZA019WJPZ	R	AC Cord	AH
SP301	VSP9050PB53WA	R	Speaker(L)	AH
SP302	VSP9050PB53WA	R	Speaker(R)	AH
	QCNW-A922WJN1	R	Connecting Cord	AE
	QCNW-A923WJN1	R	Connecting Cord	AE
	QCNW-A990WJN1	R	Connecting Cord	AE
	QCNW-A991WJN1	R	Connecting Cord	AE
	QCNW-A992WJN1	R	Connecting Cord	AF
	QCNW-B102WJN1	R	Connecting Cord	AE
	QCNW-B266WJZZ	R	Connecting Cord	AF
	QCNW-B316WJZZ	R	Connecting Cord	AF

SUPPLIED ACCESSORIES

ACCESSORIES

	RRMCG1577PESB	R	Infrared Remote Control Unit	AR
	TiNS-B333WJZZ	R	Operation Manual	AH

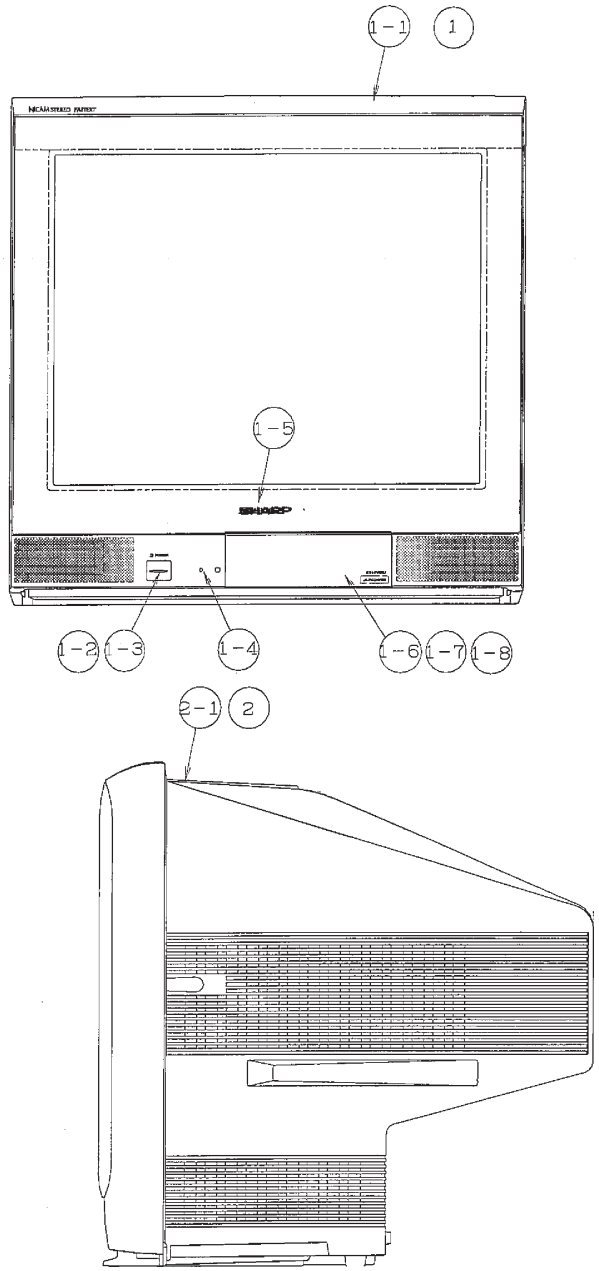
PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKCB447WJZZ	–	Packing Case	—
SPAKP0094PEZZ	–	Wrapping Sheet	—
SPAKXA299WJZZ	–	Packing Add.	—
SSAKA0031PEZZ	–	Polyethylene Bag	—

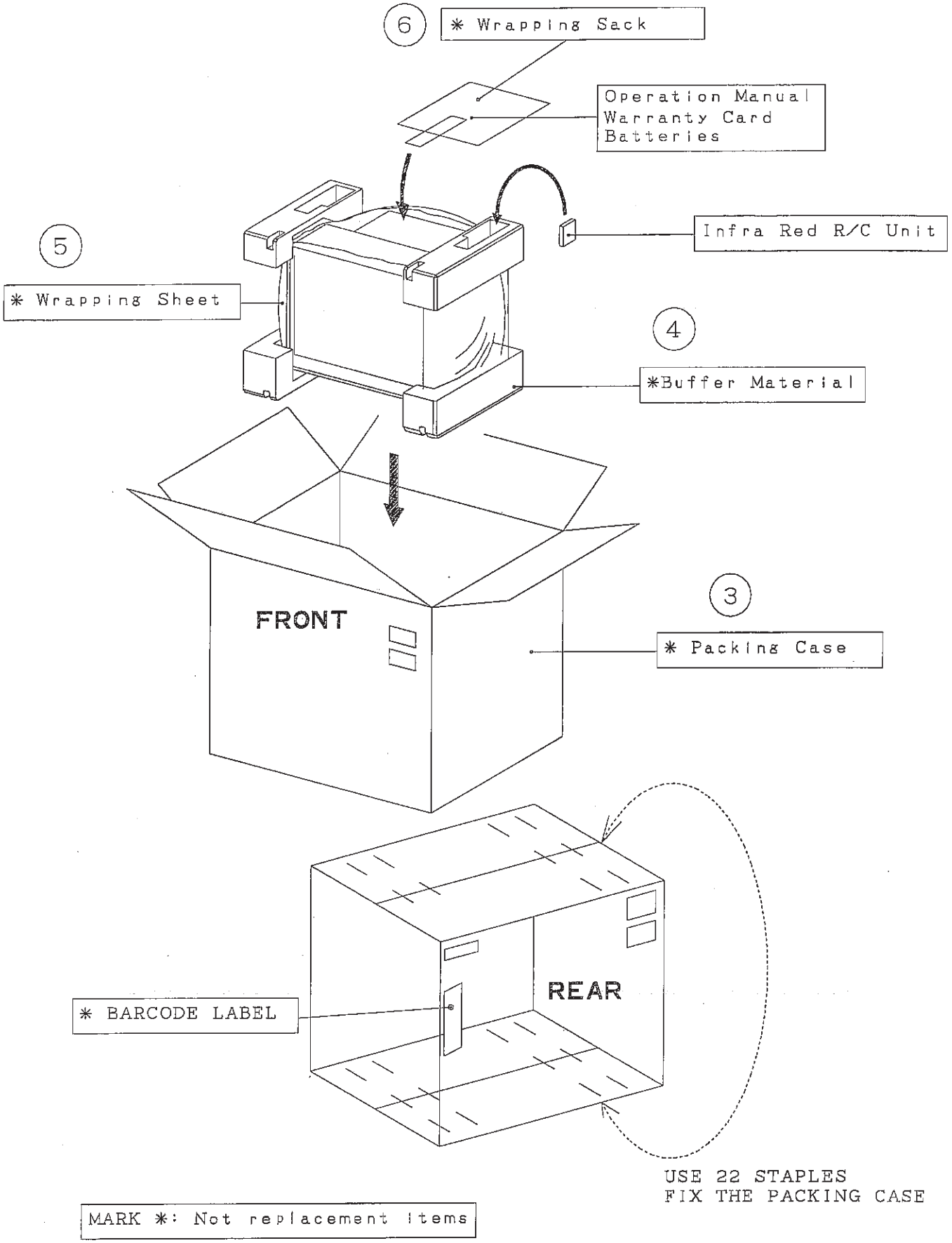
CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABAA646WEV0	R	Front Cabinet Ass'y	BD
1-1	*Not Available*	–	Front Cabinet	—
1-2	JBTN-A169WJSA	R	Power Button	AD
1-3	MSPRC0005PEFW	R	Power Button Spring	AB
1-4	GCOVAA484WJSA	R	R/C Cover	AD
1-5	HBDGB3155CESA	R	SHARP Badge	AF
1-6	GDORFA104WJKA	R	Door	AF
1-7	MSPRPA031WJFW	R	Door Spring	AB
1-8	HiNDPA595WJZZ	R	Indication Plate	AE
2	CCABBA301WEV1	R	Rear Cabinet Ass'y	BC
2-1	*Not Available*	–	Rear Cabinet	—

CABINET PARTS LOCATION



PACKING OF THE SET



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